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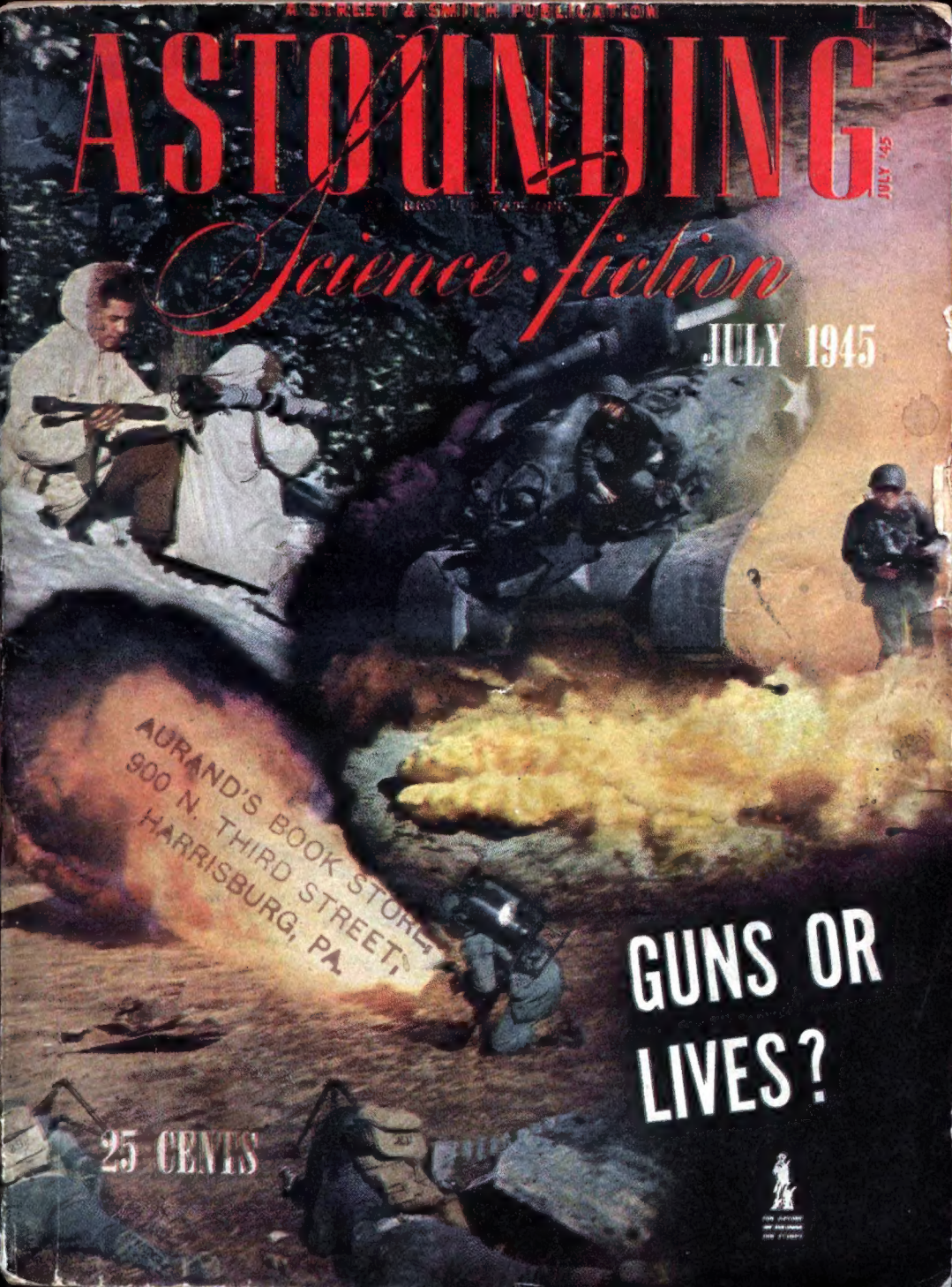
JULY '45

Science-fiction

JULY 1945



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25 CENTS

Me and Buck were having an argument about them flakes and scales on my jumper. "Listen," says he, "I'm laying my month's pay that if you'll take my advice, you'll get help—pronto!"

I took the bet.

"For all the tea in China," Buck says, "you've got infectious dandruff—germs—lots of 'em! And to fight bugs like 'bottle bacillus' you need antiseptic action—and massage!"

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Listerine Antiseptic and massage really got after those flakes and scales, eased up that itching. The old scalp and hair felt like a million—looked swell! Glad I lost that bet! Buck took the dough and we made liberty together. Good guy, Buck!

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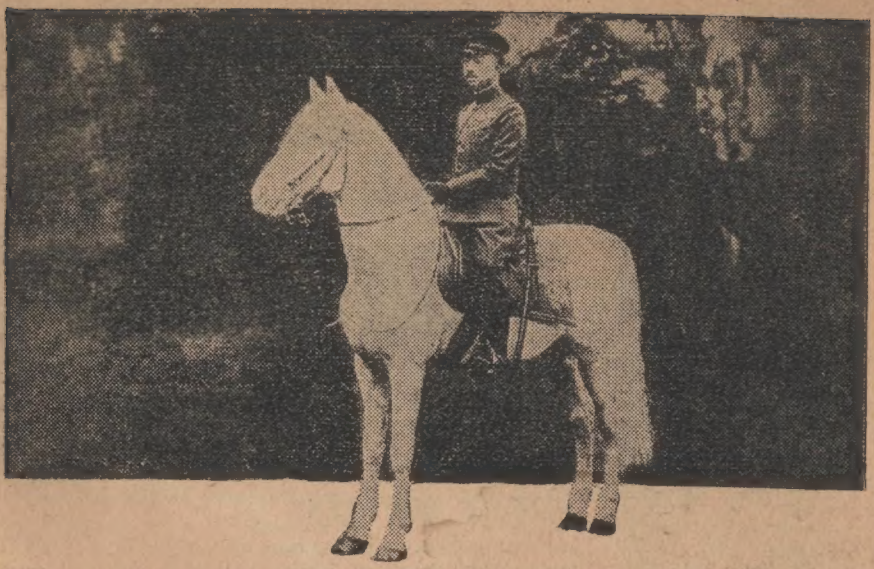

LET'S GET THE ADMIRAL HIS HORSE!

Official
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Admiral Halsey has his eye on a fine white horse called Shirayuki.

Some time ago, at a press conference, he expressed the hope that one day soon he could ride it.

The chap *now* in Shirayuki's saddle is Japan's Emperor—Hirohito.

He is the ruler of as arrogant, treacherous, and vicious a bunch of would-be despots as this earth has ever seen.

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Your personal quota is big—bigger than ever before. So big you may feel you can't afford it.

But we *can* afford it—if American sons, brothers, husbands can cheerfully afford to die.

ALL OUT FOR THE MIGHTY 7th WAR LOAN

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ASTOUNDING SCIENCE FICTION

Reg. U. S. Pat. Off.

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COVER BY TIMMINS

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Television's Niche

Last month, it was suggested that home television, and a number of other home-comfort super-gadgets proposed for everybody post-war might not ring the bell as loudly as has been claimed. Television, long just around the famous corner, seems to be the No. 1 example of the oversold commodity—the widgit that has never been able to live up to its sales talk.

Quite so. It hasn't. I've a hunch—a hunch, be it noted, not an absolute flat conviction—that it won't. If it does, however, it will be because the engineers somehow manage to pull a miracle out of that hat the sales department has been talking through. The trouble with the television situation is *not* in its engineering aspects, but in the applications people have tried to make. The plaintive comment that "It was the best butter—" remains irrelevant, if you insist on lubricating watches with it. Good or bad, that's not the place for it.

But it definitely has places of proper application—they just don't happen, it appears, to include general home installation as yet. The television methods now available are good—darned good. Receivers projecting images plenty large enough to be watched by twenty or thirty people can be produced for less than four hundred dollars; probably, for around two thousand to four thousand dollars, projector-receivers giving eight-foot images could be built. Such large images would require fine-line scanning, certainly, and other refinements of present techniques, but nothing not within present electronic engineering knowledge.

Who would invest four thousand dollars in a television receiver? Theater operators could—and gladly. And help, by their rental arrangements, to maintain a nation-wide network of relay stations or special cable lines. Spot news would be one feature, offering such things as major football or boxing matches, sports events that couldn't possibly be attended by any more than a minute fraction of the population normally. "News events while they happened" would be an attraction, actually, only when they were pre-arranged news events—such as the sporting events, conventions or inaugurations, and the like. Of course, occasionally sudden news-breaks might last long enough, and be important enough, to bring an influx. The usual bill of fare keeping the screens alight might be movies—either televised or standard projection. There would be plenty of room for such program development as has taken place in radio broadcasting.

That's one place for television. Another wide application will be in the merchandising field. Department stores would like to induce shoppers, looking for a spool of thread or a card of buttons, to pass through all the other departments in the store—the thread might be

accompanied, as it left the store, by a blanket, two new shirts, a pair of stockings and maybe a dress, if adequate suggestion—and temptation—could be offered. But there's a limit to how much nuisance the thread-buyer will put up with in reaching the thread-counter.

But television receivers, spotted about the store, could show what was going on, what was being offered, in various other departments. A style show going on on the sixth floor, seen on a first-floor front televisor, might sell that dress.

There are industrial applications, too. The operation of a new process can, occasionally, be a bit unsafe—particularly when the first pilot-plant scale set-up is tried out. It would be considerably more satisfactory to watch what went on from a considerable—and safe—distance. Or, perhaps, to watch the reaction in terms of vision involving ultraviolet or infrared light. They've got color television methods, and they have iconoscope television pick-up tubes that are sensitive far in the ultraviolet, or far in the infrared. It might be highly interesting to translate near UV to visible red, medium UV to yellow, and far UV to blue, and watch the reaction in full, *un*natural color.

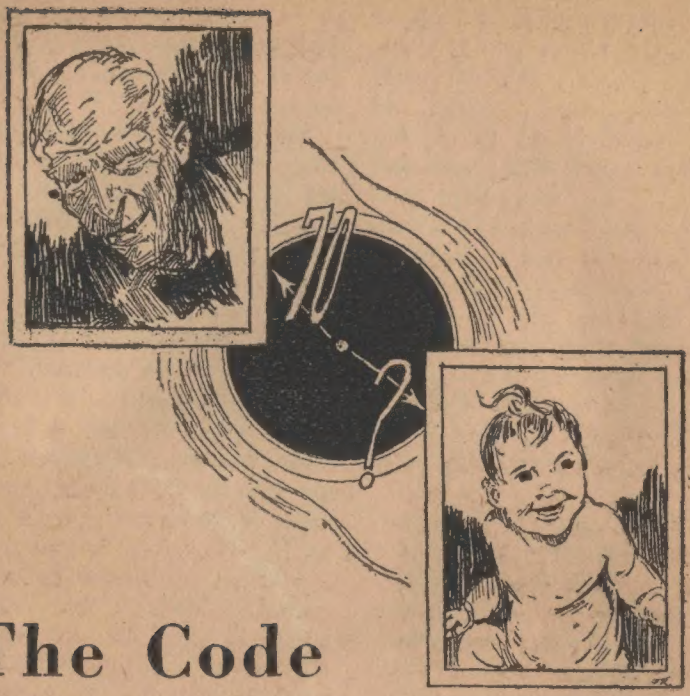
Or again, a particular operation in a manufacturing plant may be inefficient, and the engineers would like to watch and discuss it. But sometimes you can't get six or ten men close enough to watch it, nor, because of noise level, discuss it. It would make the problem a lot easier if a single televisor pickup burrowed in close, and relayed the scene to a quiet conference room where every expert could see equally well.

They have blind-take-off, blind-landing, and blind-flying instruments and techniques now—but we still have test pilots. Somebody has to be there to see and report the misbehavior of the new model plane on its first—and most dangerous—flight. Ike, the iconoscope, could probably be rigged to do a pretty good job of it. Present test-piloting involves the sort of procedure small boys engage in when they see how close they can throw a stone without breaking the window. The test pilot has to see how far he can overstrain his new plane without cracking it up. Ike, of course, wouldn't give a damn; not being alive in the first place, testing to total destruction wouldn't bother.

Then there are possibilities in exploring environments man can't stand. Too much, too little, or the wrong kind of pressure—deep sea, open space, or alien atmospheres. Interplanetary space has been reached—and some highly interesting industrial processes might be possible if the whole job were carried out, under close inspection throughout, in an atmosphere of inert argon, or reducing hydrogen.

Then there are processes involving nitration of nitroglycerin. Human eyes and human bodies are a bit fragile; Ike can have a body of two-inch steel armor plate and a face of shatterproof glass.

THE EDITOR.



The Code

by LAWRENCE O'DONNELL

The ancient legends of rejuvenation, though they called it magic, told something of its price. The trouble was, it was, like many ancient formulas and bits of knowledge, coded . . .

Illustrated by Kramer

Through the parlor windows Dr. Bill Westerfield could see the village street, with laden branches hanging low above the blue-shadowed snow. The double tracks of tires diminished in the distance. Peter Morgan's sleek sedan was parked by the curb, and Morgan himself sat opposite Bill, scowling into his coffee cup.

Bill Westerfield watched a few flakes of snow making erratic pseudo-Brownian movements in the winter twilight. He said under his breath, *"This is the winter of my discontent—"*

Morgan moved his heavy shoulders impatiently and drew his heavy black brows closer together. "Yours?"

"His." Both men looked up, as though their vision could pierce wood and plaster. But no sound came from upstairs, where old Rufus Westerfield lay in the big walnut bed carved with grapes and pineapples. He had slept and wakened in that same bed for seventy years, and he had expected to die in it. But it was not death that hovered above him now.

"I keep expecting Mephistopheles to pop up through a star trap and demand somebody's soul," Bill said. "*His* discontent . . . *my* discontent . . . I don't know. It's going too smoothly."

"You'd feel better if there were a price tag hanging on the bedpost, would you? 'One Soul, Prepaid'."

Bill laughed. "Logic implies somebody has to pay. Energy must be expended to do work. That's the traditional price, isn't it? Youth restored at the cost of Faustus' soul."

"So it's really thaumaturgy after all?" Pete Morgan inquired, pulling down the corners of his heavy mouth until the lines standing deep made his face look a little Mephistophelian after all. "I've been thinking all along I was an endocrinologist."

"O.K., O.K. Maybe that was how Mephisto did it too. Anyhow, it works."

Upstairs the nurse's heels sounded briefly on bare boards, and there was a murmur of voices, one light, one flat with age but echoing now with an undertone of depth and vibration that Bill Westerfield remembered only vaguely, from his boyhood.

"It works," agreed Pete Morgan, and rattled the coffee cup in its saucer. "You don't sound too happy. Why?"

Bill got up and walked down the room without answering. At the far end he hesitated, then swung around and came back with a scowl on his thin face to match Morgan's black-browed saturninity.

"There's nothing wrong about reversing the biological time-flow—if you can," he declared. "Father hasn't got his eye on a Marguerite somewhere. He isn't doing it for selfish reasons. We aren't tampering with the Fountain of Youth because we want glory out of it, are we?"

Morgan looked at him under a thicket of black brows. "Rufus is a guinea pig," he said. "Guinea pigs are notoriously selfless. We're working for posterity ourselves, and a halo after we're dead. Is that what you want me to say? Is there something the matter with you, Bill? You've never been squeamish before."

Bill went down the room again, walking quickly as if he wanted to get to the far end before his mind changed. When he came back he was holding a framed photograph.

"All right, look here." He thrust it out roughly. Morgan put down his cup and held the frame up to the light, squinting at the pictured face. "That was Father ten years ago," Bill said. "When he was sixty."

In silence Morgan looked long and steadily at the photograph. Upstairs they could hear faintly in the

stillness how the carved bed creaked as Rufus Westerfield moved upon it, He moved more easily now than he had done a month ago, in the depth of his seventy years. Time was flowing backward for old Rufus. He was nearing sixty again.

Morgan lowered the photograph and looked up at Bill.

"I see what you mean," he said deliberately. "It isn't the same man."

Biological time is a curious, delusive thing. It is no quirk of imagination that makes a year seem endless to the child and brief to the grandfather. To a child of five a year *is* long, a fifth of his whole life. To a man of fifty, it represents only a fiftieth. And the thing is not wholly a matter of the imagination. It links inescapably into the physical make-up of a man, in a sort of reverse ratio. In youth the bodily processes are demonstrably as much faster as the time-sense is slower. The fetus, during gestation, races through a million years of evolution; the adolescent in ten years' time covers an aging process that will take him another fifty years of slowing change to equal. The young heal rapidly; the old sometimes never heal. Dr. du Nouy in his "Biological Time" plunges even deeper than this into the mysteries of youth and age, speculating on the private time universe in which each of us lives alone.

Rufus Westerfield was groping his way slowly backward through his.

Another experimenter, a Dr. Francois this time, had given the clue which he was following, as Theseus followed another sort of clue through the labyrinthine ways where the Minotaur lurked in hiding. Dr. Francois trained subjects to tap a telegraph key three hundred times a minute in their normal state. Then he applied heat and cold, gently, not to distract his subjects. And heat shortened their appreciation of time. The key tapped faster. Academically speaking they were older when warmth surrounded them. In the cold, time ran slower, like the long days of youth.

It had not, of course, been as simple as all that. The cardiac and vascular systems of the human machine needed powerful stimulus; the liver had almost ceased to build red cells. For these time could not turn backward without help. And there had been hypnosis, too. Seventy years of habit-patterns took a lot of erasing, and more esoteric matters than these had to be dealt with. The awareness of time itself, flowing soundlessly past in a stream that moved faster and faster as it neared the brink.

"It isn't the same man," Morgan repeated without emotion, his eyes on Bill's face. Bill jerked his shoulders irritably.

"Of course it's the same man. It's Father at sixty, isn't it? Who else could it be?"

"Then why did you show it to me?"

Silence.

"The eyes," Bill said carefully after awhile. "They're . . a little

different. And the slope of the forehead. And the angle of the cheek isn't . . . well, not quite the same. But you can't say it isn't Rufus Westerfield."

"I'd like to compare them," Morgan said practically. "Shall we go up?"

The nurse was closing the bedroom door behind her as they reached the stair head.

"He's asleep," she mouthed silently, her glasses glittering at them. Bill nodded, stepping past her to push the door soundlessly open.

The room inside was big and bare with an almost monastic simplicity that made the ornately carved bed incongruous. A night light glowing on a table near the door cast long humped shadows upward on walls and ceiling, like shadows cast by a fire that has burned low. The man in the bed lay quiet, his eyes closed, his thin, lined face and thin nose austere in the dimness.

They crossed the floor silently and stood looking down. Shadows softened the face upon the pillow, giving it an illusion of the youth to come. Morgan held the photograph up to catch what light there was, his lips pursed under the black mustache as he studied it. This was, of course, the same man. There could be no possibility of error. And superficially the two faces were identical. But basically—

Morgan bent his knees a little and stooped to catch the angle of forehead and cheek as the photograph showed it. He stood stooping for a full minute, looking from face to photograph. Bill watched anxiously.

Then Morgan straightened, and as he rose the old man's eyelids rose too. Rufus Westerfield lay there looking up at them without moving. The night light caught in his eyes, making them very black and very bright. They looked sardonic, all that was alive in the weary face, but young and wise and amused.

For a moment no one spoke; then the eyes crinkled in slanting enjoyment, and Rufus laughed, a thin, high laugh that was older than his years. Senility sounded in the laugh, and a man of sixty should not be senile. But after the first cracked cackle, the sound deepened slightly and was no longer old. His voice was liable, at this stage, to break into senility as an adolescent's breaks into maturity. The adolescent break is normal, and perhaps Rufus' break was normal too, in a process that created its own norm because it was as yet unique in human history.

"You boys want something?" inquired Rufus.

"Feel all right?" Morgan asked.

"I feel ten years younger," Rufus grinned. "Anything wrong, son? You look—"

"No, not a thing." Bill smoothed the frown off his face. "Almost forgot your shots. Pete and I were talking—"

"Well, hurry up. I'm sleepy. I'm growing fast, you know. Need sleep." And he laughed again, no cackle in the sound this time.

Bill went out hastily. Morgan said, "You're growing, all right.

And it does take energy. Have a good day?"

"Fine. You going to unlearn me any this evening?"

Morgan grinned. "Not exactly. I want you to do a little . . . thinking . . . though. After Bill's finished."

Rufus nodded. "What's that under your arm? The frame looks familiar. Anyone I know?"

Morgan glanced down automatically at the photograph he was holding, the face hidden. Bill, coming in at that moment with the nurse behind him, saw the old man's brilliant, quizzical stare, and Morgan's eyes shift away from it.

"No," said Morgan. "Nobody you'd know."

Bill's hand shook a little. The hypodermic he was carrying, point up, trembled so that the drop upon its needle spilled over and ran down the side.

"Steady," Rufus said. "You nervous about something, son?"

Carefully Bill did not meet Morgan's gaze. "Not a thing. Let's have your arm, Father."

After the nurse had gone Morgan pulled a stump of candle from his pocket and set it upon Rufus' bedside table. "Put out the night light, will you?" he said to Bill as he held a match to the wick. Yellow flame bloomed slowly in the dimness.

"Hypnosis," Rufus said, squinting at the flicker.

"Not yet, no. I'm going to talk. Look at the flame, that's all."

"That's hypnosis," Rufus insisted in an argumentative voice.

"It makes you more receptive to suggestion. Your mind has to be liberated enough so you can . . . see . . . time."

"Mm-m."

"All right—not see it, then. Sense it, feel it. Realize it as a tangible thing."

"Which it isn't," Rufus said.

"The Mad Hatter managed."

"Sure. And look what happened to him."

Morgan chuckled. "I remember. It was always teatime. You don't need to worry about that. We've done this before, you know."

"I know you say we have. I'm not supposed to remember." Rufus' voice imperceptibly had begun to soften. His gaze was on the flame, and its reflection wavered in miniature in his eyes.

"No. You never remember. You'll forget all about this, too. I'm talking to a level of your mind that lies beneath the surface. The work goes on down there, in the quiet, just as the shots you're getting work in secret inside your body. You're listening, Rufus?"

"Go ahead," Rufus said drowsily.

"We must shatter the temporal idols in your mind that stand between you and youth. Mental energy is powerful. The whole fabric of the universe is energy. You've been conditioned to think you grow old because of time, and this is a false philosophy. You must learn to discount it. Your belief acts upon your body, as the adrenals react to fear or anger. It's possible to set up a conditioned reflex so that the adrenals will respond under a

different stimulus. And you must be conditioned to reverse time. The body and the mind react inseparably, one upon the other. Metabolism controls the mind, and the mind governs the metabolism. These are the two faces of a single coin."

Morgan's voice slowed. He was watching the flicker of the reflected light shining beneath the old man's lids. The lids were heavy.

"A single coin—" echoed Rufus' voice, very low.

"The life processes of the body," said Morgan in a monotone, "are like a river that flows very swiftly at its source. But it slows. It runs slower and slower into age. There's another river, though, the awareness of time, and that stream runs with an opposite tempo. In youth it's so slow you don't even guess it's moving. In age, it's a Niagara. That is the stream, Rufus, that's going to carry you back. It's rushing by you now, deep and swift. But you've got to be aware of it, Rufus. Once you recognize it, nothing can stop you. You must learn to know time."

The monotone droned on.

Fifteen minutes later, downstairs, Morgan set the photograph of Rufus at sixty upon the mantelpiece and regarded it with a heavy scowl.

"All right," he said. "Let's have it."

Bill fidgeted. "What is there to say? We're doing something so new we have no precedent. Father's changing, Pete—he's changing in ways we didn't expect. It worries me. I wish we hadn't had to use him for a guinea pig."

"There was no choice, and you know it. If we'd used up ten years of testing and experiment—"

"I know. He couldn't have lasted six months when we started. He knew it was risky. He was willing to chance it. I know all that. But I wish—"

"Now be reasonable, Bill. How the devil could we experiment except on a human subject, and a man with a high I.Q. at that? You know I tried it with chimps. But we'd have had to evolve them into humans first. After all, in the last analysis it's the intelligence factor that makes the trick possible. It's lucky your father's breakdown was purely physical." He paused, looking again at the photograph. "About this, though—"

Bill spread his hands with a distracted motion. "I'd thought of every possible chance of error—except this one." He laughed wryly. "It's crazy. It isn't happening."

"The whole thing's crazy as a bedbug. I still don't believe it's working. If Rufus is really back to sixty already, then anything can happen. It wouldn't surprise me if the sun came up from California tomorrow." Morgan fished in his pocket and brought out a cigarette. "All right, then," he said, fumbling for a match, "so he doesn't look exactly as he did ten years ago. Does he act the way he did then?"

Bill shrugged. "I don't know. I wasn't taking notes in those days. How was I to guess what you and

I'd be up to now?" He paused. "No, I think he doesn't," he said.

Morgan squinted at him through smoke. "What's wrong?"

"Little things. That look in his eyes when he woke awhile ago, for instance. Did you notice? A sort of sardonic brightness. He takes things less seriously. He . . . just doesn't match his face any more. That austere look . . . it used to suit him. Now when he wakes suddenly and looks at you, he's . . . well, looking out of a mask. The mask's changing . . . s o m e. I know it's changing. The photograph proves that. But it isn't changing as fast as his mind."

Deliberately Morgan blew smoke out in a long, swirling plume. "I wouldn't worry too much," he said soothingly. "He'll never be the same man he was ten years ago, you know. We aren't erasing his memory. Maybe he mellowed more than you realize in the decade he's just retraced. At forty, at thirty, he'll still be a man who's lived seventy-odd years. It won't be the same mind or the same man that existed in the Eighties. You're just getting a case of the jitters, my boy."

"I'm not. His face has changed! His forehead angle's different! His nose is beginning to arch up a little. His cheekbones are higher than they ever were in his life. I'm not imagining that, am I?"

Morgan blew a leisurely ring.

"Don't get excited. We'll check the shots. Maybe he's getting an overdose of something. You know how that can affect the bony structure. There's no harm done, anyhow. His physical condition is good and getting better. His mind's keen. I'm more worried about you than him right now, Bill."

"About me?"

"Yeah. Something you said before we went upstairs. Something about Faust. Remember? Now, just what did you have in mind?"

Bill looked guilty. "I don't remember."

"You were talking morals. You seemed to think there might be some punishment from on high hanging over us if our motives weren't pure. How about that?"

Bill's tone was defensive, if his words were not. "You know better than to sneer at tradition just because it's smart to. You were the one who convinced me that the old boys knew more than they ever passed on. Remember how the alchemists wrote their formulas in code to sound like magical spells? 'Dragon's Blood,' for instance, meant something like sulphur. Translated, they often made very good sense. And the Fountain of Youth wasn't water by accident. That was purely symbolic. Life rose from the water—" He hesitated. "Well, the moral code may have had just as solid a basis. What I said was that energy has to be expended to accomplish anything. Mephistopheles didn't do any work; a demon has power as his birthright. Faust had to expend the energy. In the code of the formula —his soul. It all makes sense except in the terms they used."

Morgan's heavy brows met above his eyes. "Then you think someone's got to pay. Who and what?"

"How do I know? There wasn't any glossary in the back of the book to show what Marlowe meant when he put down 'soul.' All I can say is we're repeating, in effect, the same experiment Faust went through. And Faust had to pay, somehow, in some coin or other that we'll never know. Or"—he looked up suddenly with a startled face—"will we?"

Morgan showed his teeth and said something rude.

"All right, all right. Just the same, we're doing a thing without any precedent but one, unless—" He hesitated. "Wait a minute. Maybe there was more than one. Or was it just a coincidence?"

Morgan watched him mouthing soundless phrases, and said after a moment, "*Are* you crazy?"

"Full fathoms five thy father lies," Bill recited. "How about that?

"Of his bones are coral made,
These are pearls that were his eyes,
Nothing of him that doth fade
But doth suffer a sea change
Into something rich and strange—"

Morgan snorted. "Forget that and go on. What about precedent?"

"Well, say there's only been one, then. But there was that. And it won't hurt us to take as much advantage as we can of what our predecessors learned. We can't take very much. It's all hidden in legend and code. But we do know that whoever Mephistopheles and Faust really were, and whatever means they used to get where we are now, they had trouble. The experiment seemed to succeed, up to a point—and then it blew up in their faces. Legend says Faust lost his soul. What that really means I don't know. But I say our own experiment is showing the first faint symptoms of getting out of hand, and *I* say we may find out some day what that code really means. I don't want to learn at Father's expense."

"I'm sorry." Morgan ground out his half-finished cigarette. "Is it any good my saying I think you're letting your imagination run away with you? Or have you got me cast as Mephistopheles?"

Bill grinned. "I doubt if you want his soul. But you know, in the old days you'd have got into trouble. There's something a little too . . . too thaumaturgical about hypnotism. Especially about the kind of thing you put Rufus through." He sobered. "You have to send his mind out—somewhere. What does he find there, anyhow? What does time look like? How does it feel to stand face to face with it?"

"Oh, cut it out, Bill. Worry about your own mind, not Rufus'. He's all right."

"Is he, Mephisto? Are you sure? Do *you* know where his mind goes when you send it out like that?"

"How could I? Nobody knows. I doubt if Rufus knows himself, even in his dreams. But it works. That's all that matters. There's no

such thing as time, except as we manufacture it."

"I know. It doesn't exist. But Rufus has seen it. Rufus knows it well. Rufus—and Faust." Bill looked up at the picture on the mantelpiece.

Spring came early that year. Rains sluiced away the last of the snow, and the long curved street outside the Westerfield windows began to vanish behind frothing green leaves. In the familiar cycle winter gave way to spring, and for the first time in recorded history a man's wintertime of life came round again to his own improbable spring.

Bill could not think of him any more as Father. He was Rufus Westerfield now, a pleasant stranger to look at, though memory had kept pace with his retrogression and no lapse of awareness made him a stranger to talk to. He was a healthy, vigorous, handsome stranger to the eye, though. Flesh returned solidly to fill out the aesthetic, fine-drawn body that Bill remembered. It did not seem to him that his father had been so physically solid a man in his earlier youth, but he was, of course, receiving medical care now far in advance of what had been available to him then. And as Morgan pointed out, the intention had not been to recapture a facsimile of the Rufus of an earlier day, but simply to restore the old Rufus' lost strength.

The facial changes were what mystified them most. Bodily a man may change through perfectly normal causes, but the features, the angles of forehead and nose and chin, ought to remain constant. With Rufus they had not.

"We're getting a changeling in reverse," Morgan admitted.

"A few months ago," Bill pointed out, "you were denying it."

"Not at all. I was denying the interpretation you put on it. I still deny that. There are good reasons behind the changes, good solid reasons that haven't got a thing to do with thaumaturgy or adventures in hypnosis, or pacts with the devil, either. We just haven't found out yet what causes the changes."

Bill shrugged. "The strangest thing is that he doesn't seem to know."

"There's a great deal, my friend, that he doesn't seem to know."

Bill looked at him thoughtfully. "That's got to wait." He hesitated. "We can't afford to tamper much with . . . with discrepancies of the mind, when we aren't sure about the body yet. We don't want to bring anybody else in on this unless we have to. It wouldn't be easy to explain to a psychiatrist what's behind these aberrations of his."

"There are times," Morgan said, "when I wish we hadn't decided to keep quiet about all this. But I suppose we hadn't any choice. Not until we can put down Q.E.D., anyhow."

"There's plenty to be done before that. If we ever can. If the stream isn't too strong for us, Pete—"

"Cold feet again? He'll stop at thirty-five, don't worry. One more series of shots, then say another month to strike a glandular balance,

and he'll start back to age with the rest of us. If he weren't your father, you wouldn't jitter about the whole thing this way."

"Maybe not. Maybe I wouldn't." Bill's voice was doubtful.

They were in the living room again, on a morning in May. And as Morgan looked up to speak, the door opened and Rufus Westerfield, aged forty, came into the room.

He was handsome in the solid, sleek manner of early middle age. His hair had returned to rich dark-red, growing peaked above tilting brows. The black eyes tilted too, in shallow sockets, and there was a look in them entirely strange to any Westerfield who had ever borne the name before. The face and the thoughts behind it were equally alien to the Westerfields. But it was a subtle change. He had not noticed it himself.

He was whistling as he came into the room.

"Beautiful morning," he said happily. "Beautiful world. You youngsters can't appreciate it. Takes a man who's been old to enjoy youth again." And he put the curtains aside to look out on the new leaves and the freshness of May.

"Rufus," said Morgan abruptly, "what's that tune?"

"What tune?" Rufus slanted a surprised black glance over his shoulder.

"You're whistling it. You tell me."

Rufus frowned thoughtfully. "I dunno. An old one." He whistled another bar or two, strange, almost breathless swoops of sound. "You ought to know it—very popular in its day. The words—" He paused again, the black eyes narrow, looking into infinity as he searched his memory. "On the tip of my tongue, But I can't quite— Foreign words, though. Some light opera or other. Oh well—catchy thing." He whistled the refrain again.

"I don't think it's catchy," Bill declared flatly. "No melody. I can't follow the tune at all, if it's got one." Then he caught Morgan's eye, and was silent.

"What does it make you think of?" Morgan pursued. "I'm curious."

Rufus put his hands in his pockets and regarded the ceiling. "My young days," he said. "That what you mean? Theater parties, lights and music. A couple of other young fellows I used to see a lot. There was a girl, too. Wonder whatever became of her—probably an old woman now. Her name was —" He hesitated. "Her name was —" He shaped the name with his lips, or tried to. Then an extraordinary expression crossed his face and he said, "You know, I can't remember at all. It was something outlandish, like—" He tried again to shape with his lips a word that refused to come. "I *know* the name, but I can't say it," he declared fretfully. "Is that a psychic block or something, Pete? Well, I daresay it doesn't matter. Funny, though."

"I wouldn't worry. It'll come to you. Was she pretty?"

A slightly muzzy look crossed Rufus' face. "She was lovely, lovely. All . . . spangles. I wish I could remember her name. She was the first girl I ever asked to . . . to—" He paused again, then said, "—to marry me?" in a thin, bewildered voice. "No, that's not right. That's not right at all."

"It sounds terrible," Morgan remarked dryly. Rufus shook his head violently.

"Wait. I'm all mixed up. I can't quite remember what they . . . what was—" His voice faltered and died away. He stared out the window in an agony of concentration, his lips moving again as he struggled for some reluctant memory. Morgan heard him murmur, "Neither marriage nor giving in marriage . . . no, that's not it—"

In a moment he turned back again, looking bewildered and shaking his head. There was a fine beading of sweat on his forehead, and his eyes for the first time had lost their look of sardonic confidence. "There's something wrong," he said simply.

Morgan stood up. "I wouldn't worry," he soothed. "You're still going through some important changes, remember. You'll get straightened out after awhile. When you do remember, let me know. It sounds interesting."

Rufus wiped his forehead. "That's a funny feeling—getting your memories twisted. I don't like it. The girl . . . it's all confused—"

Bill, from a far corner of the room, said,

"I thought Mother was your first love, Rufus. That's the story we always heard."

Rufus gave him a dazzled look. "Mother? Mother? Oh, you mean Lydia. Why, yes, she was, I think—" He paused for a moment then shook his head again.

"Thought I had it that time. Something you said about— Mother, that's it. I was thinking of mine. Are those pictures you've got there, Bill? Maybe I could remember whatever it is that's bothering me if I saw—"

"Grandma's picture? It's just what I was hunting. I suddenly had an idea that you might . . . uh . . . be getting more like her side of the family as you grow younger. Don't know why I never thought of that before. Here she is." He held up a yellowed metal rectangle, a tintype framed in plush. He scowled at it. "No. She's nothing like you at all. I hoped—"

"Let me see it." Rufus held out his hand. Something very strange happened then. Bill laid the tintype in his father's palm, and Rufus lifted it and looked into the shadowy features of the picture. And almost in the same motion he cried violently, "No! No, that's ridiculous!" and hurled the thing to the floor. It bounced once, with a tinny sound, and lay face down on the bare boards.

Nobody spoke. The silence was tense for half a minute. Then Rufus said in a perfectly reasonable voice, "Now what made me do that?"

The other two relaxed just perceptibly, and Morgan said, "You tell us. What did?"

Rufus looked at him, the tilted black eyes puzzled. "It was just . . . wrong, somehow. Not what I expected. Not at *all* what I expected. But what I did expect I couldn't tell you now." He sent a distracted glance about the room. The window caught his eye and he looked out at the pattern of leaves and branches beyond the porch. "That looks wrong to me," he added helplessly. "Out there. I don't know why, but when I see it suddenly I know it isn't right. It's the first glance that does it. Afterward, I can tell it's just the way it's always been. But just for a minute—" He drew his shoulders together in a shrug of discomfort, and grimaced at the two men appealingly. "What's wrong with me, boys?"

Neither of them answered for a moment, then both spoke together.

"Nothing to worry about," Bill said, and Morgan declared in the same breath,

"Your memory hasn't caught up with your body yet, that's all. It's nothing that won't straighten out in a little while. Forget it as much as you can."

"I'll try." Rufus sent a bewildered look about the room again. For a moment he seemed not only a stranger to the house and the street outside, but a stranger to his own body. He looked so sleek and handsome, so solidly assured of his place in the world. But there was nothing but bewilderment behind the facade.

"I think I'll take a walk," he said, and turned toward the door. On the way he stooped and picked up the tintype of his mother's face, pausing for an instant to look again at the unfamiliar picture. He shook his head doubtfully and laid the tintype down again. "I don't know," he said. "I just don't know."

When the door had closed behind him, Morgan looked at Bill and whistled a long, soft note.

"Well, you'd better get the record book," he said. "We ought to put it all down before we forget it."

Bill glanced at him unhappily and went out of the room without a word. When he came back, carrying the big flat notebook in which they had been keeping, detail by detail, the record of their work, he was scowling.

"Do you realize how impossible all that was?" he asked. "Rufus wasn't remembering *his* past. He never had a past like that. Forgetting all the other aberrations, the thing isn't possible. He grew up in a Methodist minister's household. He believed theaters were houses of sin. He's often told me he never set his foot inside one until long after he was married. He couldn't have known a girl who was—all spangles. He never had any affairs—Mother was his first and last love. He's told me that often. And he was telling the truth. I'm sure he was."

"Maybe he led a double life," Morgan suggested doubtfully. "You know the proverbs about preachers' sons."

"Anybody but Rufus. It just isn't in character."

"Do you *know*?"

Bill looked at him. "Well, I've always understood that Rufus was—"

"Do you know? Or is it hearsay evidence? You weren't there, were you?"

"Naturally," Bill said with heavy irony, "I wasn't around before I was born. It's just possible that up to that time Rufus was a black magician or Jack the Ripper or Peter Pan. If you want to go nuts, you can build up a beautiful theory that the world didn't exist until I was born, and you can make it stick because nobody can disprove it. But we're not dealing with blind faith. We're dealing with logic."

"What kind of logic?" Morgan wanted to know. He looked gloomy and disturbed.

"My kind. Our kind. *Homo sapiens* logic. Or are you implying that Rufus—" He let the thought die.

Morgan picked it up. "I'm willing to imply. Suppose Rufus *was* different when he was young."

"Two heads?" Bill said flippantly. And after a pause, in a soberer voice, "No, you've got the wrong pig by the tail. I see your point. That there might be . . . some biological difference, some mutation in Rufus that ironed itself out as he grew older. But your theory breaks down. Rufus lived in this town most of his life. People would remember if he'd . . . had two heads."

"Oh. Yeah, of course. Well, then . . . it could have been subtler. Something not even Rufus knew about. Successful minor mutations aren't noticed, because they *are* successful. I mean . . . a different, more efficient metabolic rate, or better optical adjustment. A guy with slightly super vision wouldn't be apt to realize it, because he'd take it for granted every-

body else had the same kind of eyes. And, naturally, he wouldn't ever need to go to an optometrist, because his eyes would be *good*."

"But Rufus has had eye tests," Bill said. "And every other kind. We gave him a complete check-up. He was normal."

Morgan sampled his lower lip and apparently didn't like it. "He was when we ran the tests, yes. But back in the Nineties? All I'm saying is, it's not inconceivable that he started out with some slight variations from the norm which may have been adjusted even by the time he reached adolescence. But the potentialities were there, like disease germs walled off behind healthy tissue, waiting for a lowering of resistance to break out again. Maybe that happens oftener than we know. Maybe it happens to nearly everybody. We do know that for every child that's born there've been many conceptions that would have produced nonviable fetuses if they'd gone to full term. These are discarded too early to be recognized. Maybe even in normal children adjustments have to be made sometimes before the adolescent perfectly fits into our pattern. And when something as revolutionary as what we did to Rufus takes place, the weak spots in the structure—the places where adjustments were made—break down again. Or say the disease germs are turned loose and rebuild the old disease. I'm mixing my metaphors. There isn't any perfect analogy. Am I making sense at all?"

"I wish you weren't," Bill said uncomfortably. "I don't like it."

"All we can do is guess, at this stage. Guess—and wait. We can't tell without a control, and we haven't got any control. There's only Rufus. And—"

"And Rufus is changing," Bill finished for him. "He's changing into someone else."

"Don't talk like a fool," Morgan said sharply. "He's changing into Rufus, that's all. A Rufus we never knew, but perfectly genuine. My guess is that most of the adjustments took place in adolescence, and he isn't going back that far. I'm only suggesting that the stories you heard about his young days may have been—well, not entirely true. He's confused now. We'll have to wait until the changes stop and his mind clears up to find out what really happened."

"He's changing," Bill said stubbornly, as if he had not been listening. "He's going back, and we don't know where it will end."

"It's ended already. He's on his last series of shots now. You haven't any reason to think he won't stop at thirty-five, when we wind up the treatments, have you?"

Bill laid down the book and looked at it thoughtfully. "No reason," he said. "Only—the current's so strong. Biological time flows so fast when you reach the midpoint. Like the river flowing toward Niagara. I wonder if you can go too far. Maybe there's a point beyond which you can't stop. I'm an alarmist, Pete. I have a feeling we've saddled a tiger."

"Now *you're* mixing metaphors," Morgan said dryly.

In June Bill said, "He won't let me in his room any more."

Morgan sighed. "What now?"

"The decorators finished two days ago. Dark-purple hangings all around the walls. I'm sure they thought he was a little crazy, but they didn't argue. Now he's got an old clock up there he's been tinkering with, and he found a table somewhere with a chessboard top, and he's making the strangest calculations on it."

"What kind of calculations?"

Bill shrugged irritably. "How do I know? I'd thought he was getting better. Those spells of . . . of false memory haven't seemed to bother him so much lately. Or if they do, he doesn't talk about it."

"When was the last?"

Bill opened his desk drawer and flipped the notebook cover. "Ten days ago he said the view from his windows wasn't right. Also that his room was ugly and he didn't know how he'd stood it all these years. It was about then that he began to complain of these pains, too."

"Oh, the 'growing pains.' And they began to localize—when?"

"A week ago." Bill scowled. "I don't like 'em. I thought it was gastric—I still think it is. But he shouldn't be having any trouble at all. He's perfect, inside and out. Those last X-rays—"

"Taken a week ago," Morgan reminded him.

"Yes, but—"

"If he keeps having a bellyache after meals, something may have gone wrong only a few days ago. Remember, Rufus is unique."

"He's that, all right. Well, I'll start all over, if I can catch him. He's getting very skittish these days. I can't keep up with him any more."

"Is he out now? I'd like to have a look at his room."

Bill nodded. "You won't find out anything. But come on up."

Purple curtains inside clogged the door for a moment, as if the room itself were trying to hold them out. Then the door came open, and a draft from the hall made the four walls billow and shiver with rich, dark-purple folds, as if things had run to hiding everywhere an instant before the two men entered. The only light come in a purple glow through curtains across the windows, until Bill crossed the room and put back the draperies that covered them. Then they could see more clearly the big carved bed, the chest of drawers, the few chairs.

At the bed's foot stood the chessboard table, chalk marks scrawled across the squares. At the back of the table stood the clock, an old-fashioned mantelpiece ornament that filled the room with a curious sort of hiccupping tick. They listened a moment, then Morgan said, "That's funny. Wonder if it's accidental. Do you hear a . . . a halfbeat between the ticks?" They listened again. *Tick-ti-tock* went the clock.

"It's old," Bill said. "Probably

something wrong with it. What I want you to look at is the second hand. See?"

A long sweep-hand was moving very slowly around the broad face. It did not match the other two. The presumption was that Rufus had found it elsewhere and added it very inefficiently, for as they watched it leaped about three seconds and resumed its slow crawl. A little farther on it leaped again. Then it made almost a complete circuit, and jumped five seconds.

"I hope Rufus isn't keeping any dates by this thing," Morgan murmured. "Lucky for him he doesn't repair clocks for a living. What s the idea?"

I wish I knew. I asked, of course, and he said he was just tinkering. It looks like it, too, in a way. But here's something funny." He stooped and opened the glass. "Look. It's very small. Here, and over here, see?"

Bending, Morgan made out upon the face of the clock, irregularly spaced between the numerals, a series of very tiny colored markings painted upon the dial. Red and green and brown, tiny and intricate, with curled lines like Persian writing. All around the face they went, varicolored and enigmatic. Morgan pulled his mustache and watched the erratic second-hand twitch around its path. Whenever it jumped it came to rest somewhere upon a twist of colored lines.

"That can't be accidental," he said after a moment. "But what's the idea? What does it record? Did you ask him?"

Bill gave him a long look. "No," he said finally, "I didn't."

Morgan regarded him narrowly. "Why not?"

"I'm not sure. Maybe . . . maybe I didn't want to know." He closed the glass face. "It looks crazy. But when it comes to machinery that measures time— Well, I wonder if Rufus doesn't know more than we do." He paused. "*You* turned his mind loose to explore time," he said almost accusingly.

Morgan shook his head. "You're losing your perspective, Bill."

"Maybe. Well—what do you make of the chessboard?"

They looked at it blankly. Careful scrawls had been traced almost at random within the squares, though it seemed evident that to the mind which directed that scrawling, purpose had been clear.

"He could just be working out some chess problem, couldn't he?" suggested Morgan.

"I thought of that. I asked him if he'd like to play, and he said he didn't know how and didn't want to be bothered. That was when he threw me out. I think it's got something to do with the clock, myself. You know what I think, Pete? If the clock measures hours, maybe the squares measure days. Like a calendar."

"But why?"

"I don't know. I'm not a psychiatrist. I've got one idea, though. Suppose during the hypnosis he imagined he did see somethng that—disturbed him. Say he *did* see something. Posthypnotic commands stopped him from remembering it

consciously, but his subconscious is still worried. Couldn't that emerge into a conscious, purposeless tinkering with things that have to do with time? And if it could, do you think maybe he may suddenly remember, some day, what's behind it all?"

Morgan faced him squarely across the table and the hiccupping clock.

"Listen, Bill. Listen to me. You're losing your perspective badly over this. You won't do Rufus any good if you let yourself get lost in a morass of mysticism."

Bill said abruptly, "Pete, do you know anything about Faust?"

If he had expected a protest, he was surprised. Morgan grimaced, the heavy lines deepening around his mouth.

"Yeah. I looked him up in the encyclopedia. Interesting."

"Suppose for a minute that the legend's got a basis of fact. Suppose that somewhere back three hundred years there really were two men who tried this same experiment and made a record of it in code. Does that give you any ideas?"

Morgan scowled. "Nothing applicable. The legend's basis is the old medieval idea that knowledge is essentially evil. 'Thou shalt not eat of the fruit of the Tree.' Faust, like Adam, was tempted and tasted the fruit, and got punished. The moral's simply that to know too much is to go against God and nature, and God and nature will exact a penalty."

"That's just it. Faust paid with his soul. But the point is that the experiment didn't run smoothly up to the end, and then suddenly collapse. Mephistopheles didn't really present a bill and carry off his reward. Their experiment went wrong almost from the start—like ours. Faust was an intelligent man. He wouldn't have bartered his immortal soul for a short fling on earth. It wouldn't have been worth while. The whole point was that Faust never took Mephisto seriously until it was too late. He deliberately let Mephistopheles spread out his trumpery pleasures, perfectly sure that they wouldn't give him enjoyment enough to matter any. And of course if they didn't the bargain was void. It was when he actually began to enjoy what Mephistopheles had to offer that he lost his soul, not at the end, when the bill was paid." Bill thumped the chess table emphatically. "Could a code tell you any plainer that the thing got out of hand almost at the beginning?" He looked at Morgan with narrowed eyes. "All we've got to do now is find out what the code for 'soul' means."

"Got any ideas?" Morgan inquired sardonically. "I'm worried more about you, Bill, than I am about Rufus. I'm beginning to wonder if we haven't made a mistake in our subject. You're too close to Rufus."

He was surprised at the look that came over Bill's face. He watched him frown a little, thump the table again, and then walk to the window and back without saying anything. Morgan waited. Presently,

"I'm not, really," Bill said. "Father and I never were very close

emotionally. He wasn't the type. Rufus, I think, could be. Rufus has all the warmth that Father lacked. I like him. But it's more than that, Pete. There's something in the relationship between us that affects me as Rufus is affected. It's a physical thing. Rufus is my closest living relative, though he's a stranger now even in appearance. Half my chromosomes are his. If I hated him, I'd still be linked to him by that much heritage. Things are happening to him now that never happened to a human being before, so far as we know. It's as if, when you pull him out of the straight course of human behavior, you pull me too. I can't look at the thing abstractly any more." He laughed almost apologetically. "I keep dreaming about rivers. Deep, swift waters running faster and faster, with the abyss just ahead and no way on earth to escape it."

"D r e a m - symbolism—" began Morgan.

"Oh, I know Freud, of course. But the river itself is a symbol. Sometimes it's Rufus on the raft, sometimes it's me. But the riptide has always caught us. We've gone too far to turn back. I wonder if—"

"Stop wondering. You've worked too hard. What you need is a rest from Rufus and everything connected with him. After you get those X-rays and figure out what's wrong with him, suppose you get away for awhile. When you come back Rufus will be thirty-five going-on-forty again and you can forget about the river and start dreaming about snakes or teeth or something normally Freudian. O.K.?"

Bill nodded doubtfully. "O.K. I'll try."

Three days later, in the Westerfield study, Morgan held an X-ray plate against the light and squinted at the shadowy maze of outlines. He looked a long time, and his hand was shaking when he laid the plate down carefully, scowling at Bill under brows so heavy they almost hid the expression of his eyes. It was an expression of bewilderment that verged on fear.

"You faked these!"

Bill made a futile gesture. "I wish I had."

Morgan gave him another piercing glance and turned back to the light for a second look. His hand was still shaking. He steadied it with the other and stared. Then he took up another plate and looked at that.

"It's impossible," he said. "It never happened. It couldn't."

"The . . . the simplification—" began Bill in an uncertain voice.

"The wonder is he can digest *anything*, with this set-up. Not that I believe it for a minute, of course."

"Everything's simplifying," Bill went on, as if he had not heard. "Even his bones. Even his ribs. They give like a child's ribs, half cartilege. I got to thinking, you know, after I saw that. I gave him a basal, just on a hunch, and he's plus forty. His thyroid is burning him up. But Pete, it doesn't seem to hurt him! No loss of weight, no increased appetite, sleeps like a

baby—why, my nerves are twice as jumpy as his."

"But—that's impossible."

"I know."

Silence. Then, "Anything else wrong?"

Bill shrugged helplessly. "I don't know. I was afraid to run any more tests on him after that. It's the truth, Pete—I was afraid to."

Morgan put the last plate down very gently, and turned his back on the table. For the first time there was uncertainty in his motions. He was no longer a man supremely sure of himself. He said, in an indecisive voice, "Yeah. Well, we'll start tomorrow and give him a thorough going over. I . . . I think maybe we can find what's—"

"It's no use, Pete. You see that. We've started something we can't stop. He's gone too far along the river, and the current's got him. All the basic life processes that move so fast in youth are moving in him now faster than we can move. God knows where he's going—not back along any path a man ever heard of before—but he's into the current and we can't do a thing about it."

And after a moment Morgan nodded. "You were right," he said. "You've been right all along, and I've been wrong. Now what?"

Bill made a gesture of futility. "I can't tell you. This is still your party, Pete. I'm just along for the ride. I saw the dangers first because . . . well, maybe because Rufus is my own kin and the pull was . . . tangible . . . between us. When he went off beam I could feel it psychically. Could that explain anything?"

Morgan sat down with sudden limpness, like a man whose muscles have abruptly gone weak. But his voice, after a moment's bewilderment, began to grow firm again.

"It's up to us to find out. Let's see." He shut his eyes and rubbed the closed lids with unsteady fingers. There was another silence. Presently he looked up again and said, "He's been changing from the very first. I suppose I've been assuming that something in our treatment had shuffled his chromosomes and genes around into a new pattern of heredity, and he was beginning to throwback to some ancestor we never knew about. But now I wonder if—" He paused. and a startled look crossed his face. He stared at Bill with eyes that widened enormously. "Now I wonder—" he echoed tonelessly, as if his lips repeated something meaningless, while his mind raced ahead too fast for utterance.

After that he got up with a sudden, abrupt motion and began to pace the floor, his steps rapid. "No," he murmured, "that's crazy. But—"

Bill watched him for a moment or two longer. Then he said in a quiet voice, "I had the same idea quite awhile ago. I was afraid to say anything, though."

Morgan's head jerked up and he stared. Their eyes held in a long look, awe in Morgan's. "That they were shuffled—too much? The chromosomes could have fallen into a pattern—too different?"

"You saw the X-rays," Bill said gently.

"Let's have a drink," was all Morgan answered to that.

When they were settled again, and there was something very soothing and matter-of-fact about the tinkle of ice in their glasses, Morgan began in a voice that strained a little for the prosaic.

"There *may* be a race that looks like Rufus. Or there may once have been. No use jumping at the impossible before we exhaust normal possibilities. I've been trying to think of any race at all with just his facial characteristics, and there isn't one on earth today, but that's not saying there never has been. No race sprang full-blown into the world, you know. You and I must have had remote ancestors who lived on Atlantis, or were contemporaries of the Atlanteans anyhow. And who knows what *they* looked like?"

"You keep forgetting," Bill reminded him, still gently. "The X-rays. And this may be only the beginning. He'll move faster and faster now. Physiological time is fast—terribly fast—as it nears the source. Do you think there was ever a race like Rufus—inside?"

Morgan looked at him over the glass rim. He caught his breath to say something forcefully, then let it out in a sigh. "No. I don't think there ever was. Not here."

"All right," Bill said. "You take it from there."

"How can I?"

"Try. I'm afraid to. My ideas are too . . . too credulous. I'm curious to see if your mind follows the same track. Go on—take over."

"He's a . . . a changeling," Morgan began, groping. "There've been stories about changelings for a

long time. Older than the Faustus legend. I wonder, was Faust a changeling too? Did he have the same potential trace of heredity that a time-reversal could make dominant? Changeling . . . fairy's child . . . fairies? Fragile people, invisible at will, built to another scale than ours—another dimension? Other dimensions, Bill?"

Bill shrugged. "He can't eat what we eat. If these changes go on, there won't be a food on earth he can digest. Maybe, somewhere, there is—"

Morgan said abruptly, "Maybe the changes won't go on, either. We don't know they will. Are we making fools of ourselves, groping around in fairy stories for an answer we may not need?"

"I think we'll need it, Pete. Anyhow, let's go on and see what we get. Another dimension, you were saying—"

"O.K., suppose there *were* changelings," Morgan said violently. "Suppose there *are* goblins and things that go bump in the night—"

"'Good Lord, deliver us,'" Bill finished the quotation with a grin. "Use a little logic, Pete. I don't expect you to believe the pumpkin turned into a coach. But if we apply the alchemist's formula to the changeling idea, or the Faust legend, do we get anything at all?"

"Oh, that isn't so new. It's been suggested before that the supernatural beings of legend might be distorted memories of some other-dimensional visitors. But Rufus—"

"All right, Pete, say it."

With an air of deliberate sacrifice, Morgan lifted his black-mustached lip in a snarl and said, "Rufus may be—he appears to be—an hereditary throwback to some inhabitant of another world. Is that what you want?"

"It'll do."

"It explains—" Morgan suddenly glowed with an idea that justified his sacrifice. "It explains his reaction to the picture of his mother. It explains why things look wrong to him here. It even explains his impossible memories, in part."

Bill looked doubtful. "Yes—in part. There's something more, Pete. I'm not sure what—I just know this isn't all. It's not quite so easy. The clock, and the calender, if that's what the chessboard is—yes, you could say he senses a different time-scheme from ours and he's groping to recapture something familiar from some other life-experience he can't quite remember yet. But there's something more. We'll know before we're through, Pete. He's on his way back now. I'm scared. I don't want to know about it. My mind panicks when I think of it. It's too close to me. But we'll know. We'll find out. We haven't got to the root of the thing yet, but when we do we'll see it isn't as easy as all this."

"The root? I wonder. There's one thing, Bill. Rufus wasn't like this during his normal growth-period. You remember what we were discussing once about the possibility of aberrations at birth that smoothed out in adolescence? He *could* be experiencing now the results of disturbing that adjustment.

But you can't mutate backward. It simply isn't remotely conceivable, by any application of logic, on this or any other world. You can say he's inherited a potentiality of Martian or other-dimensional chromosomes, but that still won't explain it. Mutation is a . . . a spreading out, a flowering, not a drawing in. And that *must* hold good anywhere in this—" He stopped, his heavy brows drawing together. After a while, he began again, gropingly.

"I'm wrong on that. It . . . let's see. It holds good only as long as there's the same temporal constant. And that's just what doesn't apply to Rufus."

Bill scowled. "He's going back in time, but it's all subjective, isn't it?"

"It started out that way. Could be the subjective's affecting the objective."

"That Rufus is warping *time?*"

Morgan was not listening. He had found pencil and paper in his pocket and was absorbing himself in meaningless squiggles. The heavy moments moved past. The pencil point stopped.

Morgan looked up, his eyes still puzzled. "Maybe I've got it," he said. "Maybe. Listen, Bill—"

In a railroad yard there are many tracks. Each track carries a train, moving forward relentlessly in space—and parallel.

According to the theory of parallel time, each train is a spatial universe, and the tracks are laid on the dark roadbed of time itself. Far, far back, in the black beginning, there may have been one track only, before it branched.

As it branched and branched again, the parallel roads spread out, forming in little groups—the New York Central, the Pennsylvania, the Southern Pacific and the Santa Fe. The trains—the universes—of each are roughly similar. The Penn has many cars rushing headlong through the dim mistiness of time, but they all contain recognizable variations of *homo sapiens.* The tracks branched, but the system is still a unit.

There are other units.

One thing they have in common—no, two things. They are parallel in time, and originally they came from the same unthinkable source, hidden in the mind-staggering, vast mysteries of the womb of space and time. *In the beginning—*

But you can't go back to the beginning. You can't even go back along your timetrack. Because the train is moving on, it isn't where it was twenty, fifty, eighty years before, and if you try to retrace your steps, you're walking along a strange road. It isn't quite spatial or temporal, really. It may involve—well, call it a dimension—that's so remarkably alien to us that we can't even conceive of it except as a—*difference.*

But it may be a bridge, a shortcut, this strange road the traveler finds when he tries to retrace time. It may be a tightrope stretched precariously between parallel timetracks. The letter N expresses it. The vertical lines are the timetracks where the trains go by. The an-

gled line is the shortcut—from the Penn to the New York Central.

Different companies. Different lines. Different—*groups*.

So you can't recapture *your* youth; you can't go home again; that home isn't there any more. It's away back along the track, lost in the dusk where the dead ashes of Tyre and Gomorrah have smoldered out.

And it isn't just a matter of chromosomes. Not merely subjective. But going back, at an angle, into one of the parallel times where a certain equivalent of Rufus Westerfield existed.

Parallels do not imply similarity—not when the cosmic equations are involved. The basic matrix may not vary, but only a god can recognize such an ultimate basic. The mammal matrix, for example. Whales and guinea pigs are each mammalian.

So there were, perhaps, many equivalents of Rufus Westerfield, in the infinity of trains along the infinity of tracks—but he was not retracing his course along the Pennsylvania line.

The New York Central line was—parallel—but only on the Penn road were tickets sold to *homo sapiens*.

Rufus Westerfield was twenty-five. He lay at full length in the porch swing, somnolent in the hot July afternoon. One arm was behind his head and he tugged at the support-chain now and then to keep himself in lazy motion.

Laziness, indeed, was his keynote at this stage. Which seemed odd in contrast with the keen, humorous face so subtly unlike his face of forty-odd years ago, when he had once before been twenty-five. You would still have known at a glance that Rufus and Bill were closely related; the change was too subtle to alter that. But there was a sharpening of all the features now, a more than physical sharpening. And the contradictory indolence of him made Rufus look arrogant.

It was, given this outrageous setup, a normal indolence, but it went curiously with the youth of the man. At twenty-five a mind as keen and a face and body as forceful as Rufus' should have had no indolence about them. But at twenty-five the normal man is just entering upon the most productive period of his life. All through adolescence he has been building impatiently toward this fulfillment of his maturity.

But there had been nothing immature about Rufus Westerfield's immediate past. And life was not before him. The swift temporal current flowed away past him and out of sight. He moved toward the helplessness of infancy, not to the activity of his prime. And each day that went by was longer and more pellucid to him than the last. As the physical processes of his body moved faster and faster, nearing adolescence, so the temporal processes of his mind went slower. The thoughts of youth, wrote Longfellow, are long, long thoughts.

Rufus put out his free hand and deftly took up a glass from the porch floor as the swing lifted him

toward it. Ice tinkled pleasantly; it was a rum collins, his fifth today. He watched the flicker of leaf-shadows on the porch roof and smiled comfortably as he sipped the sweet, strong liquid, rolling it upon his tongue. Taste was developing more and more keenly in him as the years retrogressed. The infant's whole mouth is lined with taste buds, and in Rufus' mouth, little by little, those taste buds were returning.

He had drunk a good deal in the past two months. Partly because he liked to drink, partly because alcohol was one of the few things his changing digestion would tolerate. And it helped to blur that nagging sense in him which he could not put a name to, the feeling that much he saw about him was indescribably wrong.

Rufus was an intelligent young man. Also he was tolerant. He saw no point in letting the sense of wrongness color his life unduly. He dismissed it when he could. In part this was simply an admirable adjustment to environment. It was a great pity that the man through whose changing phases Rufus moved so rapidly must remain only half known. He would have been a fascinating man, with his memories and mature wisdom accumulated over seventy years, his vigorous mind and body, and the sardonic keenness, the warmth and humor developing in him now. And with all these the enthralling subtleties of change from no source a man ever drew upon before. He was a blend, perhaps, of human and extra-human, and perhaps the best of each, but no one would ever know him wholly. The man he might have been was moving too swiftly for more than a glimpse at the life he might have lived. The stream that bore him along could not run slowly.

In part, then, it was a tolerant adjustment to life that let him accept what was happening so calmly. But it was also a form of precociousness in reverse. Because he was keenly intelligent, he would normally—at twenty-five going on twenty-six—have been in advance of his years. His brain would have fitted him to cope successfully with men many years his senior. And now, at twenty-five going on twenty-four he was still in advance of his age. But in reverse. In Rufus, it was efficiency that his mind was slowing leisurely toward the long thoughts of youth. It spared him a great deal.

The pleasant blur of drunkenness had another effect, too. It released the surface tension of his mind and let strange flotsam drift upward. Memories and fragments which he knew had no place in the past he had already lived. Knowing it, he made no effort to reconcile the paradox. More and more as time went by he approached that period when the individual questions only the superficial aspects of his world. Basically, he accepts it, turning trustfully to the protection of those around him. And in Rufus, his very intelligence forced him backward prematurely into that state of mind which belongs to childhood, because it was in that state that he could find the greatest protection

from a peril his subconscious must have sensed and would not let the surface of his mind suspect.

On the surface, memories from two pasts floated and merged and sank away again, lazily, evoked by alcohol. In the beginning, memories of that other past had been thin as smokewreaths drifting transparently across the face of his clearer remembrance, indistinguishable from realities. It was a long time before he became consciously aware that two sets of memories, many of them mutually exclusive, were moving at once through his mind. By the time he was sure, he had passed beyond the stage of caring. Things beyond his control were happening with inexorable rhythms that carried him smoothly toward a goal he did not try to glimpse yet; it would come in good time, he could not miss it, he was ready.

Now the memories from that other past were superimposed over nearly all his Westerfield memories. He looked back upon Westerfield years more dimly, through a haze of obscuring events that did not seem in the least strange to him, and no more alien than his remembrances of Bill's youth, and of his long-dead wife. He could no longer distinguish at a mental glance which memory belonged to the Westerfield period and which to the other. But they had been different. Very different indeed. Individuals moved past and through his memories of Bill and Lydia, individuals whose names he knew but could not yet pronounce, beings who had played tremendous roles, perhaps, in that other past, in that other place.

But they too were veiled in this all-encompassing indifference which was his protection and his precociousness. Like the Westerfields, they belonged to an era that was moving too fast to be savored much. He had not time to spare for leisurely evocations of the past.

So he remembered, pleasantly, not questioning anything, letting the liquor release the double stream of memories and letting the memories glide by and go. Faces, colors, sensations he did not try name, songs—like the song he was singing under his breath, now, to the slow rhythm of the swing.

Bill, coming up the steps, heard the song and tightened his lips. It was no tune at all. It was one of the nagging, impossible harmonies Rufus hummed so constantly, not really knowing that he did it. The words were not English, when he sang them in absent-minded snatches, and the melody was more alien than the cacophonies of oriental music. Bill had given up trying to understand. He had given up a great deal in the past month, since it became obvious that Rufus was going on beyond the thirty-five which was to have been his stopping point. Bill had met failure halfway and acknowledged the meeting with what equanimity he could summon. There was nothing to salvage now but sufficient grace to confess defeat.

Rufus in the swing seemed half asleep. The lids were lowered

above the tilted black eyes, and the face had no expression beyond indolence. It worried Bill that although this was not a Westerfield face any more, it remained akin to his own. Again and again of late he felt with unreasoning discomfort that as Rufus changed in feature, he pulled Bill's own features awry to conform. It was not true, of course, the change was indescribably outside the mere matter of facial angles, but the effect remained disconcertingly the same.

Rufus did not open his eyes as his son's step sounded on the porch, but he said lazily, "Want a date tonight, Bill?"

"No thanks, not with one of your girls. I know when I'm well off."

Rufus laughed without lifting his lids, blind, indolent laughter that showed his white teeth. Then he stirred a little and looked up at his son, and Bill felt sudden helpless horror congealing in him. It was too abruptly inhuman a thing to face with no warning at all.

For though the lids had lifted, Rufus was not looking directly up with the black gaze that had once been sardonic and was now only lazy and amused. Something thin and blind stretched over his eyes, something that drew back slowly, with the deliberation of a cat's gaze, or an owl's. Rufus sometime in the immediate past had developed a nictitating membrane, a third eyelid.

If he knew it, he gave no evidence. He was grinning in amusement. The lid slipped back and vanished, and might never have been there. Rufus stretched and got up with a long, slow litheness, and Bill found it possible to forget for the moment what it was he had just seen.

Rufus' body had a beautiful muscular co-ordination which was in its own way tragic just now. And within it, the mechanism must differ impossibly from the norm. Bill had not checked upon the changes in the past two weeks, changes which he knew must be taking place almost while one watched. He should be fascinated, from a purely clinical viewpoint, in what took place. But he was not. He could accept the knowledge of failure, because he must, but he had in this case no urge to probe the reasons for failure. It was more than an unsolved problem. It was a matter intimately involving his own flesh and blood. As a man with an incurable disease might shun the sight of his infirmity, so Bill would not investigate any further the impossible things that were changing in this body which was half his own.

Rufus was looking at him and smiling.

"How you've aged," he murmured. "You and Pete both. I can remember when you were just youngsters, two or three months ago." He yawned.

"Have you got a date?" Bill asked. The young Rufus nodded, and for a moment his black eyes almost closed and the third lid slid drowsily forward, half veiling the irises. He looked like an aloof, contented cat. Bill could not watch

him. He had become calloused enough by now to these changing paradoxies and he was not shocked out of self-possession, but he still could not look straight at this latest evidence of abnormality. He only said, "Don't look so smug," and went into the house abruptly, letting the screen slam behind him.

Rufus' eyes opened a little and the extra lid slid back, not all the way. He gazed after his son, but calmly, as incurious as a man might feel who watches a cat withdraw, disinterest in an alien species clouding his eyes.

He came in that night very late, and very drunk. Morgan had been waiting with Bill in the parlor, and they went out in silence to the taxi to bring Rufus in. His limp body was graceful even in this extremity. The driver was nearly in hysterics. He would not touch his passenger. It was impossible to make out exactly why—something that Rufus had done, or had not done, or perhaps had only said, on the way home.

"What was he *drinking*?" the driver kept demanding in a voice that broke on the last word. "What could he have been *drinking*?"

They could not answer that, and could get no coherent reason from the man why they should. He went away as soon as Bill had paid him—he refused to accept or touch money from Rufus' wallet—driving erratically with a great clashing of gears.

"Has this happened before?" Morgan asked over Rufus' lolling, dark-red head.

Bill nodded. "Not so bad, of course. He — remembers — things when he's drunk, you know. Maybe he remembered something big this time. He always forgets again, and maybe that's just as well, too."

Between them Rufus moved a little, murmured a word, not in English, and waved both hands in an abortive gesture of expansion, rather as if vast landscapes were spread before him. He laughed clearly, not a drunken sound at all, and then collapsed entirely.

They put him to bed in the big carved bedstead upstairs, among the purple curtains. He lay as limply as a child, his familiar-strange face looking curiously like a solid mask with nothing at all behind it. They had turned to leave him, both of them tight-lipped and bewildered, and they were halfway across the room when Bill paused and sniffed the air.

"Perfume?" he asked incredulously. Morgan lifted his head and sniffed, too.

"Honeysuckle. Lots of it." The heavy fragrance was suddenly almost sickening in its sweetness. They turned. Rufus was breathing with his mouth open, and the fragrance came almost palpably from the bed. They went back slowly.

Deep waves of perfume rose to meet them as he breathed. There was no smell of liquor at all, but the honeysuckle sweetness hung so heavy that it left almost a sugary taste upon the tongue. The two

men looked blankly at one another.

"It'd suffocate anyone else," Morgan said finally. "But we can't very well get him away from it, can we?"

"I'll open the windows," Bill said with restraint. "There's no way now to tell what's going to hurt him."

When they left the room the curtains were billowing gently in a breeze from the windows; the walls shuddered all around the room with the motion. In the silence Rufus' perfumed breath was the only sound except for the stutter of the clock with its long jumping hand. Just as they reached the door there came a slight change in the quality of the fragrance Rufus was exhaling. Neither pleasant nor unpleasant, an indescribable shift from odor to odor as color might shift and blend from one shade to another. But the new odor was not like anything either man had ever smelled before.

Bill paused briefly, met Morgan's eyes, then shrugged and went on out.

Downstairs in the study, Morgan said, "He's moving fast." He was silent awhile, then, "Maybe I'd better come in for awhile, Bill, until it's over."

Bill nodded. "I wish you would. It'll be soon. Awfully soon, I think. They grow so fast—you can almost *see* a child growing. And Rufus condenses years into weeks."

Biological time moved like a river, swifter and narrower as it nears the source. And temporal perception ran clearer and slower with every passing day. Rufus returned unperturbed in mind to his first childhood—or perhaps his third, by actual count, though memory of that senile past had almost vanished now. In youth, as in age, forgetfulness clouded his tranquil mind, partly because the days of his age were so far behind him now, but partly too because his brain was smoothing out into the untroubled immaturity of childhood. Born swiftly and smoothly along that quickening stream, he moved backward toward the infirmities of youth.

And now a curious urgency seemed to possess him. It was like the reasonless instinct that drives an animal to prepare the burrow for her young; the phenomenon of birth, approached from either side of the temporal current, seemed to evoke intuitive knowledge of what was to come, and what would be needed for its coming.

Rufus began to stay more and more in his room, resenting intrusion, resisting it politely. What he did was difficult to guess, though there was much chalk dust about the table with the chessboard top. And he worked on the clock, too. It had four hands now; the face was divided into concentric circles and the extra hand was a blur that spun around the painted dial. All this might have seemed the typical preoccupation of the adolescent mind with gadgetry, had there not been that urgency which no normal child needs to feel.

It was not easy any more to determine what went on in his rapidly changing body, since he resented and resisted examination, but they did discover that his metabolism had accelerated unbelievably. He exhibited none of the typical hyperthyroid traits, but the small gland in his throat was busily undoing now all the pituitaries had governed long ago, in the growth of his first childhood.

Normally the hyperthyroid's tremendous appetite is insufficient to keep up with the rate at which he expends energy, as his abnormally accelerated metabolism devours his very tissues in a fierce effort to keep pace with itself. In Rufus, that devouring metabolism worked inwardly upon muscle and bone. He was no longer physically a big man; he lost weight and stature steadily, from within, burning his own bulk for fuel to feed that ravenous hunger. But with Rufus it was impossibly normal. He felt no resultant weakness.

And within him, more secretly, perhaps the white corpuscles in his blood may have undergone change and multiplication, to attack his internal organs and work their changes there, much as the phagocytes of a pupa work histolysis inside the chrysalis, reducing what lies within to a plasma in which the imago to come lies already implicit in solution. But what lay implicit and hidden in the changing body of Rufus Westerfield was a secret still locked in the genes which time had so curiously disarranged.

All this was retrogression, and yet in a sense it was progress if determined, orderly procedure toward a goal means anything. The time-stream narrowed about him, flowing backward toward its source.

"He's now, I should say, about fifteen," said Bill. "It's hard to tell—he never comes out of his room any more, even to meals, and I don't see him unless I insist on it. He's changing a good deal."

"How do you mean?"

"His features . . . I don't know. Sharper and finer, not childish at all. His bones seem quite flexible, all of them. Abnormal. And he's running a fever so high you can feel the heat without even touching him. It doesn't seem to bother him much. He just feels a little tired most of the time, like a child who's growing too fast." He paused and looked at his interlaced fingers. "Where will it end, Pete? Where *can* it end? There's no precedent. I can't believe he'll just—"

"No precedent?" interrupted Morgan. "I remember the time when you thought I was following Mephistopheles' footsteps."

Bill looked at him. "Faust—" he said vaguely. "But Faust went back to a definite age and stopped there."

"I wonder." Morgan's voice was half sardonic. "If the legend's all in code, maybe Mephisto's bill, when he presented it, had something to do with—this. Maybe what the legend coded as the loss of a soul was something like what's happening to Rufus now. Perhaps he lost his body, not his soul. Still, they were devious, those alchemists. 'Body' for 'soul' is pretty obvious."

"Too obvious. We haven't seen the end yet. Before we do, we'll know. I'm willing to admit the moral now . . . too much knowledge can be too dangerous to handle without losing . . . well, something important. But the penalty . . . we'll have to wait for that."

"Um-m," Morgan said. "You say he isn't like a child now? Remember, I haven't been in his room at all."

"No. Whatever kind of childhood he . . . *they* have, it isn't much like ours. But I haven't really seen him very clearly. He keeps it so dark in there."

"I wish I knew," Morgan said longingly. "I'd like very much to . . . suppose we couldn't just walk in and turn the lights on, Bill?"

Bill said quickly, "No! You promised, Pete. We're going to let him alone. It's the least we can do, now. He knows, you see. Reason or instinct—I can't tell which. Either way, it's no reason or instinct *our* species would understand. But he's the only one in the house who's sure of himself at this stage. We've got to let him play it his way."

Morgan nodded regretfully. "All right. I wish he weren't . . . hadn't ever been Rufus. We're handicapped. I wish he were just a specimen. I'm getting some funny ideas. About his—species. Did you ever think, Bill, how different the child is from the adult in appearance? Every proportion's ab-

normal, from an adult standpoint. We're so used to the sight of babies they look human to us even from birth, but someone from Mars might not recognize them as the same species at all. Has it occurred to you that if Rufus went back to . . . to infancy . . . and then reversed the process and grew up again, he'd probably grow up into something alien? Something we couldn't even recognize?"

Bill glanced up with a sudden gleam of excitement. "Do you think that might happen?"

"How can I tell? The time-stream's too uncharted for that. He might run against some current that would start him back downstream again at any moment. Or he might not. For his sake, I hope not. He couldn't live in this world. We'll never know what sort of world he belongs in. Even his memories of it, the things he said, were too distorted to mean anything. When he was willing to talk about it, he was still trying to force the alien memories into the familiar pattern of his past, and what came out was gibberish. We won't know, and neither will he. Just as well for us, too, if he doesn't grow up again. There's no criterion for guessing what shape *his* adult form would have. It might be as different from ours as . . . as the larva is from the butterfly."

"Mephistopheles knew."

"I expect that's why he was damned."

He could no longer eat anything at all. For a long while he had subsisted on a diet of milk and custards and gelatines, but as the internal changes deepened his tolerance grew less and less. Those changes must by now have gone entirely beyond imagining, for outwardly, too, he had changed a great deal.

He kept his curtains drawn, so that toward the end Bill could hardly see anything more than a small, quick shadow in the plum-colored darkness, turning a pale triangle of face from the light when the door opened. His voice was still strong, but its quality had changed almost indescribably. It was at once thinner and more vibrant, with a sort of wood-wind fluttering far back in the throat. He had developed a curious impediment of speech, not a lisp, but something that distorted certain consonants in a way Bill had never heard before.

On the last day he did not even take his tray into the room. There was no point in handling food he could not digest, and he was busy, very busy. When Bill knocked the thin, strong, vibrant voice told him pleasantly to go away.

"Important," said the voice. "Don't come in now, Bill. Mustn't come in. Very important. You'll know when—" and the voice went smoothly into some other language that made no sense. Bill could not answer. He nodded futilely, without a word, at the blank panels, and the voice within did not seem to think a reply from him necessary, for the busy sounds went on.

Muffled and intermittent, they

continued all day, along with a preoccupied humming of queer, unmelodious tunes which he seemed to handle much better now, as if his throat were adjusting to the curious tonal combinations.

Toward evening, the air in the house began to grow tense in an indescribable way. The whole building was full of a sense of impending crisis. He who had been Rufus was acutely aware that the end had nearly come, and his awareness drew the very atmosphere taut with suspense. But it was an orderly, unhurried imminence that filled the house. Forces beyond any control, set in motion long ago, were moving to their appointed fulfillment behind the closed door upstairs, and the focus of this impending change went quietly about his preparations, like someone who knows himself in the hands of a power he trusts and would not alter if he could. Softly, humming to himself, he prepared in secret to meet it.

Morgan and Bill waited in chairs outside the closed door as night came on, listening to sounds within. No one could have slept in that taut air. From time to time one of them called, and the voice answered amiably but in preoccupation so deep that the answers were haphazard. Also they were becoming more muffled, difficult to understand.

Twice Morgan rose and laid a hand upon the knob, avoiding Bill's anxious eyes. But he could not bring himself to turn it. He could almost think the tension in the air would hold the door against him if he tried to push it open. But he did not try.

As the hours neared midnight, sounds from within came at longer and longer intervals. And the sense of tension mounted intolerably. It was like hurricane weather, as forces high in the upper air gathered for an onslaught.

The time came when there had been no stirring for what seemed a very long time, and Bill called, "Are you all right?"

Silence. Then, slowly and from far away, a reluctant rustling and the sound of a muffled voice, inarticulate, murmuring a syllable or two.

The two men looked at each other. Morgan shrugged. Bill in his turn half rose and reached for the knob, but he did not touch it. The hurricane was still gathering in the upper air; they might not know when the time for action came, but they could sense, at least, when the time was not.

Silence again. When Bill could wait no longer, he called once more, and this time there was no answer. They listened. A faint, faint stirring, but no voice.

The next time he called, not even a stirring replied.

The night hours went by very slowly. Neither of the two men was aware of drowsiness—the air was too taut for that. Sometimes they talked quietly, keeping their voices low, as if whatever lay beyond the door were still within reach of sound.

Once Morgan said, "Remember,

quite a while ago, I was wondering if Rufus was biologically unusual?"

"I remember."

"We decided then he wasn't. I've been thinking, Bill. Maybe I've got a glimmer of what's coming now. Rufus, say, simply switched to another time-line as he retrogressed. Any human might. Any human almost certainly would. Your ancestors wouldn't have to be abnormal or nonterrestrial, and you wouldn't have any more mutation-possibilities than anybody else. It's just that by growing young, you cut over to another circuit. Normally we'd never even know it existed. The relation between our Rufus and the . . . the Rufus of that other place must exist, but we'd never have known about it." He looked at the door without expression for a moment. Then he shook himself a little.

"That's beside the point. What I'm thinking is that the farther back he goes, the closer he's getting to the main-line track of that—other place. When he touches it—"

They knew, then, what they were waiting for. When two worlds touch, something has to happen.

Bill sat and sweated. *Has everybody got that potential?* he wondered. *Has Morgan got it? Have I? If anybody has, wouldn't I have? Inheritance. No wonder I felt Rufus was pulling me awry as he moved back along the track toward— What would I be like then? Not myself. An equivalent. Question mark.*

Equivalent. Ambiguous. Nothing I want to know about now. But maybe when I'm seventy, eighty, I won't think so. Without taste or teeth or vision, all senses dulled, I might remember the way— I might—

He was aware of a curious, secret shame, and shrugged the thought away. For a while. For a long while. For many years, perhaps.

They were silent after that. The night moved on.

And still the tension held. Held, and mounted. They smoked a great deal, but they did not leave the door. They could not begin to guess what it was they waited for, but the tension held them where they were. And the long hours of the night passed midnight and moved slowly toward dawn.

Dawn came, and they still waited. The house was tight and silent; the air seemed too taut to move through or draw into the lungs. When light began to come through the windows, Morgan got up with a great effort and said, "How about some coffee?"

"You make it. I'll wait here."

So Morgan went downstairs, moving with almost palpable difficulty that was perhaps wholly psychic, and measured water and coffee in the kitchen with hands that were all thumbs. The coffee had begun to send out its own particular fragrance, and the light was strong beyond the windows, when a sudden, perfectly indescribable *sound* rang through the house.

Morgan stood rigid, listening to that vibrating, ringing noise as it died slowly away. It came from upstairs, muffled by walls and floors

between. It struck bewilderingly upon the ears and quivered into silence with perceptible receding eddies, like rings widening in water. And the tension of the air suddenly broke.

Morgan remembered sagging a little all over at that sudden release, as if it were the tautness in the atmosphere that had held him up during the long wait. He had no recollection at all of moving through the house or up the stairs. His next clear impression was of Bill, standing motionless before the opened door.

Inside it seemed quite dark. Also there appeared to be many small points of light, moving erratically, shining and fading like fireflies. But as they stared the lights began to vanish, so they may have been simply hallucinations.

But that which stood on the far side of the room, facing them, was not hallucination. Not wholly hallucination. It was—someone.

And it was a stranger. Their eyes and brains could not quite compass it, for it was not anything human. No one, confronted for one brief, stunned moment of his life with a shape so complex and so alien could hope to retain the image in his mind, even if for one evanescent instant he did wholly perceive. The perception must fade from the mind almost before the image fades from the retina, because there are no parallels in human experience by which to measure that which has been seen.

They only knew that it looked at them, and they at it. There was impossible strangeness in that *exchange* of glances, the strangeness of having exchanged looks with that which should not be looking at all. It was like having a building look back at one. But though they could not tell how it met their gaze—with what substitute for eyes, in what portion of its body—they knew it housed an individuality, an awareness. And the individuality was strange to them, as they were to it. There was no mistaking that. Surprise and unrecognition were instinct in its lines and its indescribable gaze, just as surprise and incredulity must have been instinct in theirs. Whatever housing the individual wears, it knows a stranger when it sees one. It knows—

So they knew this was not Rufus—had never been. But it was very remotely familiar, in a wrenchingly strange way. Under the complexity of its newness, in one or two basic factors, it was familiar. But an altered and modified familiarity which instinct rather than reason grasped in the moment they stood and saw it.

The moment did not last. Against the dark the impossible figure loomed for a timeless instant, its vision locked with theirs. It stood motionless, but somehow in arrested motion, as if it had halted in the midst of some rapid activity. The dark room was full of amazement and tense silence for one brief flash.

Then noise and motion swirled suddenly around it. As if a film had been halted briefly while the

audience gazed, and now sprang back into life and activity again. For the fraction of a second they could see—things—in action beyond and around the figure. A flash into another world, too brief to convey any meaning. In the flash they looked back, unseeing, along the branching of the temporal track that leads from one line to another, the link between parallels along which alien universes go thundering.

The *sound* rang out again through the house. Heard from so near, it was stunning. The room shook before them, as if sound waves were visibly vibrating the air, and the four walls sprang suddenly to life as the curtains billowed straight out toward what might have been vacuum at the center of the room. The purple clouds threshed wildly, hiding whatever happened beyond them. For an instant the *sound* still quivered and rang in the air, the whipping of strained cloth audible below it, and the room boiled with stretched purple surges.

Morgan said, "Rufus—" and took a couple of unsteady steps toward the bed.

"No," said Bill in a gentle voice. Morgan looked back at him inquiringly, but Bill only shook his head. Neither of them felt capable of further speech just then, but Morgan after a moment turned away from the bed and shrugged and managed a slightly shaken,

"Want some coffee, Bill?"

Simultaneously, as if sensation had returned without warning to their numbed faculties, they were aware of the fragrance of fresh coffee rising up the stair well. It was an incredibly soothing odor, reassuring, a link to heal this breach of possibility. It bound the past to the stunned and shaken present; it wiped out and denied the interval they had just gone through.

"Yeah. With brandy or something," Bill said. "Let's . . . let's go on down."

And so in the kitchen, over coffee and brandy, they finished the thing they had begun with such hopes six months before.

"It wasn't Rufus, you see." Bill was explaining now, Morgan the listener. And they were talking fast, as if subconsciously they knew that shock was yet to come.

"Rufus was—" Bill gestured futilely. "*That* was the adult."

"Why d'you think so? You're guessing."

"No, it's perfectly logical—it's the thing that had to happen. Nothing else *could* have happened. Don't you see? There's no telling what he went back to. Embryo, egg—I don't know. Maybe something we can't imagine. But—" Bill hesitated. "But that was the mother of the egg. Time and space had to warp to bring her to this spot to coincide with the moment of birth."

There was a long silence. At last Morgan said.

"The—adult. *That.* I don't believe it." It was not quite what he had meant to say, but Bill took up the argument almost gratefully.

"It was. A baby doesn't look

like an adult human, either. Or maybe . . . maybe this was a larva - pupa - butterfly relationship. How can I tell? Or maybe it's just that he changed more than we knew after we saw him last. But I know it was the adult. I know it was the . . . the mother. I know, Pete."

Across the fragrant cups Morgan squinted at him, waiting. When Bill offered nothing further, he prompted him gently.

"How do you know, Bill?"

Bill turned a dazzled look at him. "Didn't you see? Think, Pete!"

Morgan thought. Already the image had vanished from outraged memory-centers. He could recall only that it had stood and stared at them, not with eyes, not even with a face, perhaps, as well as he could remember now. He shook his head.

"Didn't you recognize — something? Didn't it look just barely familiar to you? And so did I, to—it. Just barely. I could tell. Don't you understand, Pete? *That* was almost—very remotely almost —my own grandmother."

And Morgan could see now that it was true. That impossible familiarity had really existed, a distant and latent likeness, relationship along a many-times-removed line stretching across dimensions. He opened his mouth to speak, and again the wrong words came out.

"It didn't happen," he heard himself declaring flatly.

Bill gave a faint ghost of a laugh, quavering with a note of hysteria.

"Yes, it happened. It's happened twice at least. Once to me and once to . . . Pete, I know what the code was now!"

Morgan blinked, startled by the sudden surprise in his voice. "What code?"

"Faust's. Don't you remember? Of course that's it! But they couldn't tell the truth, or even hint it. You've got to face the thing to believe it. They were right, Pete. Faustus, Rufus—it happened to them both. They—went. They changed. They aren't . . . weren't . . . human any more. That's what the code meant, Pete."

"I don't get it."

"The code for soul." Bill laughed his ghost of hysterical mirth again. "When you aren't human, you lose your soul. That's what they meant. It *was* a code word, and it wasn't. There never was a deeper meaning hidden in a code that isn't a code. How could they have hidden it better than to tell the truth? Soul *meant* soul."

Morgan, listening to the mounting hysteria in his laughter, reached out sharply to check him before it broke the surface, and in one last fleeting instant saw again the impossible face that had looked at them through the doorway of another world. He saw it briefly, indescribably, unmistakably, in the lineaments of Bill's laughter.

Then he seized Bill's shoulder and shook him, and the laughter faded, and the likeness faded, too.

THE END.

MALCOLM JAMESON

December 21, 1891 — April 16, 1945

Malcolm Jameson, a man possessed of more sheer courage than most of us will ever understand, died April 16, 1945, after an eight-year writing career, initiated when cancer of the throat forced him to give up the more active life he wanted. Any author can tell you that you can't write good stuff when you're feeling sick. Jamie never quite understood that—perhaps because he began when he did. X-ray and radium treatment controlled the cancer for a time, but only at a price of permanent severely bad health.

He sold his first story to Astounding in 1938. That was followed by such memorable and sparklingly light stories as "Admiral's Inspection," the whole Commander Bullard series, and his many other stories in UNKNOWN WORLDS.

The man who could accomplish that under the conditions imposed on him was not of ordinary mold.

The Commander Bullard series grew out of Jameson's own experiences as a Lieutenant in the United States Navy from 1916 till his retirement in 1927. He had much to do with the development of modern naval ordnance; his work is fighting in this war, though he himself was not permitted to do so.

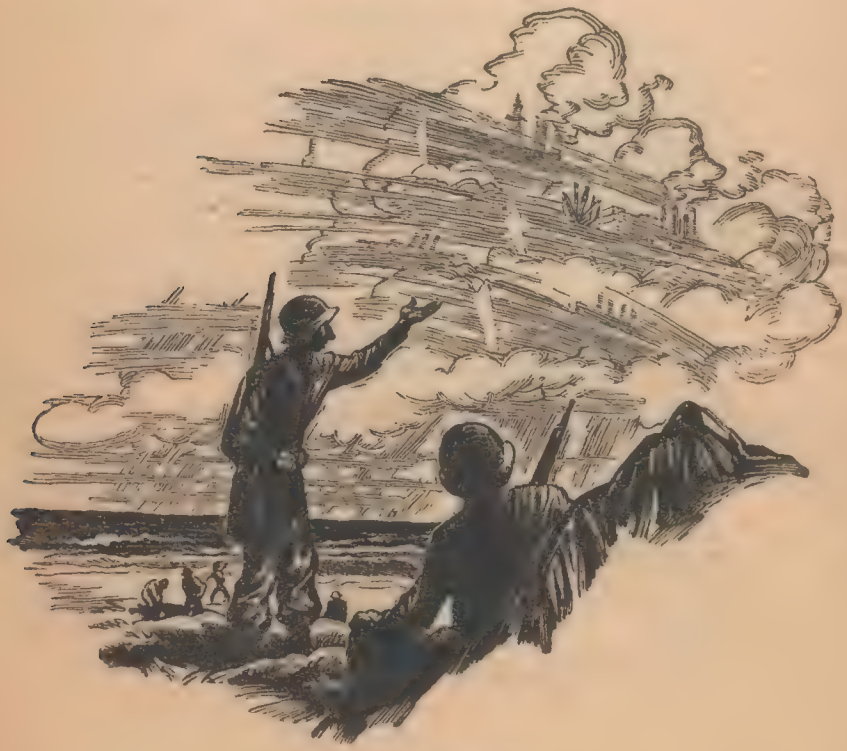
He is survived by his wife, his daughter, Corporal Vida Jameson, of the WAC, his son, Major Malcolm Jameson, in the Infantry and now overseas, and his brother, House Jameson, better known as "Mr. Aldrich" of the "Aldrich Family" program.

The Editor.

He was a queer little guy—funny ideas and funny . . . powers. But the weapon he rigged from radio parts, a movie projector, and a most peculiar memory wasn't funny to Japs!

Resonance

by ERIC FRANK RUSSELL



Illustrated by Orban

This guy Wakko ought never to have been in Uncle Sam's army because his chest had dropped below his waistline and he wore his right ankle in the front of his neck. Said ankle would wobble every time he spoke one of his weird pieces. Furthermore, he had a nose like unto the smeller of a monkey and he wore contact lenses that made his eyes so glassy you wondered who'd stolen the lily out of

his hand. He'd never been anything but a ninety-pound weakling, and it was going to hearten the Japs if ever they caught him—they'd think that Old Whiskers must be getting somewhat desperate to use stuff like that.

The Japs never did get him. On the contrary, he got two thousands of them. How he did it is the story, but I was there and thus can tell you that he didn't suddenly wax Sergeant Yorkish or remove their plumbing one by one. He got them like the Pied Piper got the rats, only more so, and if I live to be five hundred I shall never see the like again! One look would tell you that there was something mighty queer about this gezeeber; it was so evident that his nickname was too inevitable to need mentioning.

We met for the first and last time on Hushine, two-bit spot of territory on the left-hand side of the Russell Group going north. Guadalcanal was way over there and with plenty of heat on it. Hushiné hadn't much length, a good deal less breadth, and could be divided into three parts. The southern portion held our airfield and general stamping ground; the mid part was No Man's Land and mostly the tatters of much bombarded jungle; the north was lousy with Japs. The place had all the makings of a nice, efficient, twentieth-century charnel house, and any two opponents could no more help meeting sooner or later than could two fleas on the tail of the same dog.

Wakko squatted on the curve of an upblown root, his feet at the edge of a bomb crater, and a Nambu pistol in his hand. He was studying the weapon with the distasteful interest of an old maid who's found a mouse in the trap. I asked him where he'd got the souvenir, and he turned those glassy eyes upon me, jerked his thumb to indicate some place up north. Those orbs of his sure gave me the hennikins, but I managed to depimple my spine, sat down beside him and joshed him into conversation.

"I was surveying in the north," he said. His voice was low but vibrant, his diction precise. "So was an enemy officer. I took his gun."

"How?"

"I just took it," he said, flatly.

"Did you kill him?"

"Certainly not. I merely wished to have his weapon so that I could study it for my own information. Why should I have killed him?"

"You're in the army!"

"Ah, yes." He looked faintly troubled, put down the Jap popgun, smoothed an imaginary crease in his leg wear. "Which in some respects is a convenience, but in others is a decided nuisance."

"Don't tell me," I begged. "Let me do my first twenty years and find it out for myself."

He fell into a musing silence, pursing thin lips under his great beak of a nose, his lens-covered eyes staring moodily out to sea. The way he brooded reminded me of those enigmatic statues on Easter Island.

After a while he snapped out of it, picked up the dropped Nambu, juggled it around. Then he nudged the butt of my Garand with his foot.

"Pellet-blowers," he murmured. "So archaic. So antiquated. How childlike are the devices of the infantile."

This stung me seeing he'd included the Garand, and I said, very snootily. "Could you think up anything better? And would it make 'em any more dead?"

"A gross fundamentalist, I perceive." He stared at me as if I were a misplaced Hottentot or something long believed to be extinct. The stare was cold, cold. "Something better? Is not the mess sufficient already?"

"Never mind dodging the issue," I countered. "Could you or could you not invent something better than anything we're using?"

"I could produce it." He spoke with the air of one who could produce anything from a ten-pound ruby to a purple banana. "There would be no need to invent it."

"Hope? And why not?"

"I would only have to remember."

"Nuts," I said. "You're just plain goofy!"

Maybe he had an answer to that one too. If so, I didn't get it. At that point a couple of dozen bugbears zoomed into our sky, guys jumped around the ack-ack guns and heavy stuff began to drop. I saw a grounded Corsair fly apart just before I'd made my hole deep enough to swallow the Empire State. For twelve long minutes shells went up and bombs came down. Shrapnel showered around me, a fallen nosecap sprayed the back of my neck with dirt and something from the cannon of a diving aircraft almost ended my days. When it was over and I'd clambered out, the beak-nosed Wakko was gone.

During the next three weeks we got plenty of action. To the northeast, a bit farther than you could spit, lay a chain of atolls which the yellow-bellies must've packed so full of aircraft that they'd had to stack them like cans of beans. And they sent them across, running a sort of shuttle service. The arrivals came far too frequently for my liking. The entire island shook and shuddered and behaved as if it were liable to turn over and sink, carrying me and all the others back to the Land of Mu a few miles down.

More rice mashers poured in and we mowed them down and more poured in and we mowed them down and more poured in. One small bunch of foolhardy leathernecks arrived to bolster *our* side. They joined the fray with bellicose gusts, doing much to nullify the fertile pastimes of the enemy's honorable ancestors. But we had to pay. I buried Rudy and Fats and Old Hambone. Also, I lost the lobe of my left ear.

Then came a lull. Reckon they must've cabled to Hirohito saying so sorry but estimable Americans stay put and please rush more divine bangers. They'd dropped all they'd got including compunctions. But

those who've had experience of squabbles know that a lull is the enemy's way of telling you that he's making ready to break your neck. So we weren't deceived, being of mature years, and dug ourselves deeper in readiness for the worst.

Many of the august guardians of Asia had picked our territory on which to expire. They were likely to stink a worse than they ever did in life, so we used a small bunch of prisoners to plant them way down where they'd be sanitary. Said prisoners did a good job of it, being energetic, docile, and comporting themselves humbly as becomes a lower grade of creation. Sometimes I almost came to liking them. Our fireside propagandists have got those little yellow guys all wrong. Why, washed in an antiseptic, fitted with better bodies, supplied with brains, and given a decent education, they'd verge on the human.

I was watching the stiffs go down into a communal hole when I became aware of Wakko standing by my side. His eyes were gazing blankly into the burial dump and his thoughts were a million miles away.

"Ho," I said, waking him up. "So you're still alive."

"Why not?" He turned his eerie optics upon me. "You are!"

"I've developed a habit: when something comes down I'm the little man who wasn't there."

"Fortuitous circumstance," he said, ponderously. He swung his foot, kicked a spray of dirt over the belly of a defunct Nipponese. "Or have you the faculty of prevision?"

"Have I the what?"

"The faculty of prevision."

"I dunno what that is. But I've some gum if you want a wad."

"Vulgar muck," he snapped.

A couple of prisoners pushed past us, bearing the body of a deceased Jap major. A mortar bomb had blown away most of the major, and he looked anything but bronzed and fit. In fact, he looked lousy. So they tossed his carcass into the pit and went away for another.

Staring stonily at the cadaver, Wakko said, "How great are the ambitions of the servants in the absence of the masters."

"Big talk," I chaffed. "These monkeys have proved plenty tough. They're cooking up more trouble right now and I've a queer feeling that when they start we're going to be in bad—unless somebody does something mighty fast."

"These were the spreaders of manure in the outpost fields of ancient days. In these decadent times shall the crops be theirs?" His thin lips closed bleakly, giving his profile the appearance of a rousing eagle. "Perhaps not even now."

"We'll see," I said, nettled by his assured air and his enigmatic comments.

"As for us," he went on, ignoring my skepticism, "there shall be aid. Seven ships are coming. They will be here in about two days."

"How'd you know? Did Franklyn tell you?"

"Look for yourself. See their at-

mospheric streaks." He waved a negligent hand to the east. "Over there."

I looked. There wasn't anything; nothing but the sea, the sky and the flaming sun. Positively there were no streaks of any sort whatsoever. If this swami hung around me any longer, he'd get away with my pants.

"Beat it," I said, hoarsely. "My nerves haven't been so good since the day Maisie lugged me to the preacher. Go peddle your thoughts some place else."

He gave me a look. He must've spent months practicing it before a mirror because it was so downright cold and stony that it made me feel as if someone had clasped my heart with a hand of ice.

"There is an infinite distance between superstition and knowledge," he orated. "And the knowledge you don't understand is something quite apart from gross superstition."

"Yes, teacher," I said.

Turning scornfully, he wandered off, his back view slight and weedy, his pace a loose-jointed slouch. I've never met a guy who could sound like more and look like less. Nor one who could produce such cryptic remarks that, later on, were to raise by back hairs. He was dynamite, when the right time came, but I couldn't foresee that.

Within fifty hours the ships arrived. I timed them. There were seven of them, and my mind was full of Wakko as I watched them come in. There were three large freighters, three destroyers and one sloop, and they were all a bit battered but plenty defiant. Somebody had registered strong objection to their passage but the objection had been overruled. That celestial simian in Tokyo must've been mortified.

The shuttle service swung into action to emphasize the imperial displeasure. We shot down five Zeros, five Mitsuibishi three engined jobs and one float-plane which roared sluggishly within range of somebody's gun. We lost a barrel of booze, one small case of cinnamon gum, a pet cockatoo and our tempers. The sloop and one of the freighters looked even more shopsoiled than before.

Came the inevitable lull. A Sherman clanked ashore followed by another and another. A total of six of them rumbled inland leaving great weals in the sand of the beach. These were our first and only supply of armor and they were needed.

A gob lounged in the bow of a landing craft and addresses to me sundry insulting remarks concerning landbound forces. He was a large party, with a natural sporran on his chest and with wrists like my thighs, so I maintained a dignified silence and let him yammer on.

Then Wakko popped up as if released from a magic bottle. He nodded at the vessels.

"See?" he said.

"I got eyes," I told him, loudly.

"Then why didn't ya join a *man's* service?" bawled the gob.

"They didn't want one,"I shouted back. "They were too full up with hairy bums."

"Dear me!" said Wakko, mildly.

"Tsk! Ain't he jealous!" jeered the gob. His spade of a hand smote the sporran and his chest rang like an anvil. "Who's the lady friend?"

"He means you," I informed Wakko.

"Me?" Wakko's blink wasn't really a blink. It'd describe it better to say that he hooded his eyes. "I would not bandy words with so primitive a type." He turned his narrow back and began to walk away.

"Listen, Lulu," ordered the gob, "you learn to be polite else poppa smack um hand!"

Wakko stopped and turned again. He gave the gob a look. Not being on the other end of it, I couldn't tell how it felt, but it sure must have been quite a look. I think that his eyes flamed with it. The flame must've been especially imported from Hades and could sear across twenty yards of space, because it had an effect upon Hairy whose jaw dropped and whose face abruptly lost its pugnacity.

"O.K., brother," said the gob, nervously, and in a peculiarly dithering voice. He unleaned from the landing craft's side, backed away hastily. "You lay off me and I'll lay off you, see?" He backed faster, tripped over something, fell with a heavy thump, picked himself up and ran. Without a further glance at the still glaring Wakko, he pounded into the bowels of the ship.

"Look," I mouthed, waving a feeble mitt toward the ship. "What made that hoodlum hole up? What made Sammy run, eh? Was it hypnotism or is it just your body odor?"

Wakko stared fixedly out to sea and didn't answer.

I put in, impatiently, "Now what does the seer see?

"More ships. Fifteen of them," he replied, stating it as factually as a count of loaves of bread. "The enemy's, I think. If so, there will be a severe struggle before another week is gone."

"Tut," I chided, "you should be nonchalant about little things like that. All you've got to do is give them the evil eye and say 'Begone' At which they'll scat. If you're half as good as you advertise, you could lead us straight to Tokyo."

"Why should I meddle in the mass-stupidities of this age?"

"It's the age you're in, ain't it?" I yelped, throwing away what little is left of my grammar.

"Do you join a fight because it's in the street in which you happen to be?"

"Sure! How can a public fight be a private one?"

"On which side do you join?"

"On any side. On both sides. I smack any mush within reach."

"Mush?" he said.

"Kisser," I explained. "Pan, clock or face."

"Imbecility" he pronounced.

"How can it be?" I tapped him on his narrow chest but didn't look into his eyes. "They all prod at me, see? So I larrup them, see? And when the cops come they beat to death everyone within sight, see? Then they snitch the body of some

unconscious peacemaker who's pushed in his beezer where he shouldn't and they beat him awake and charge him with starting a riot. And he gets fined ten bucks or more, which teaches him not to interfere with communal diversions, see?"

"I don't see" said Wakko, sharply. "Sit down!"

"Go to blazes," I snapped—and sat down. I sat on my heels, cross-legged, like Buddha. It surprised me.

"You will count up to two-forty," declared Wakko. "You will do it slowly, deliberately and with regular rhythm. It will take you precisely four minutes at the end of which you will rise and depart without animosity. Should hostile planes appear before you have finished your recognition of them will set you free immediately."

I struggled to get up, without avail. I opened my mouth to say, "Why you apology for a knock-kneed rookie," but instead my mouth uttered a lugubrious, "One." I gaped at this and my mouth promptly said, "Two" It was voicing a monotonous, "Thirty-seven," as Wakko passed out of my sight.

So I got smart. Patiently, I said, "Thirty-eight," and, "Thirty-nine," then triumphantly yelled, "Two-forty". But the two got lost and only the forty came out. Believe it or not, I squatted there like a paralyzed bullfrog until I'd done all my sums. Then I got up on aching legs and walked away. My self-conversation also was Texas style.

You don't get much chance to stoke up your grudges when your chief worry is to avoid getting punctured while you're still a mighty long way from Dallas, so I had no ire over my compulsory recitation. What I did have, though, was an infernal curiosity about Wakko. Who was this emaciated gimp? What had he got that wasn't government issue? Behind my mind was the stubborn notion that he was a former horoscope artist who'd developed a couple of side lines, but also behind my mind was the knowledge that this theory didn't really explain anything.

I went to the beach to look up that gob with the idea of persuading him to take down his hair and say right out what Wakko had done to him, but the gob wasn't talking in any cogent manner. Our conversation went something like this:

Me: "Hi, matlow—remember?"

Him: "Beat it, willya?"

Me: "Now, look, don't get sore. I just want a gabfest about that buddy of mine."

Him: "I don't!" He picked up a deck broom, gave it a vicious shove along the planks. "I hope his hair falls out and his ears drop off!"

"Now don't be that way," I soothed. "All I want to know is exactly what he gave you."

"He gimme a pain in the guts, see? I get it every time I think of him. I don't wanta see that hex-doctor again any place this side of creation."

"Yes, but what did he do, and what—?"

"*You* ought to know," he inter-

rupted. "You get his number all right—it went up to two-forty."

I felt myself redden. Giving the broom another violent shove, the gob favored me with a final scowl and went below. That, it seemed, was that—and nothing more was to be learned from this source.

Later, I had a chew with Youbet over Wakko, opening my soul to him and telling him all, but I could see that he didn't believe one half of it. The only thing to do was to let the subject drop—as far as you can drop anything which persists in popping up with the craziest things.

That night the samurai came along and suffered for the glory of Nippon and the gratification of Tojo. It was tough while it lasted. They sent a stream of small caliber bullets over our lines followed by a dollop of mortar shells, after which they advanced yelling insults in none too grand English. We popped them off wholesale and, after an anxious couple of hours, they retired into the tattered jungle taking most of their dead with them. Our advance patrols left our lines into which they'd been driven and sneaked back into the fringe of greenery close upon the Jap's heels.

In the morning the shuttle ser-

vice got going again. What with our fresh supplies of guns and shells, plus the armament on the ships still in the bay, we gave them a hotter reception than usual and it made their bombing somewhat sloppy. They concentrated on the ships and the ships concentrated on them and the uproar must've gone quite a way around the world. Our counterblast cost the enemy plenty. They got the sloop and two of the three freighters but the ocean swallowed one blazing plane after another.

Being rammed well down a foxhole most of the time I couldn't see much of what was going on although I could hear plenty. We were expecting another and more ferocious attack from the north to coincide with the blast at our rear, but the enemy infantry contented themselves with no more than frequent sharpshooting from the bush. All I did see was a bomber catching it in the neck. Behind me came a roar of engines suddenly drowned out by the furious rattle of a destroyer's multiple pom-poms. The next instant the aircraft lurched wildly over my foxhole, a wing fell off and a Kinsei engine thudded into the ground less than a hundred yards away. The craft then swooped sidewise, smacked into No Man's Land and became a mass of flames. Nobody was going to sort out those guys' ashes to send back to the Holy Shrine.

Things went on this way for another couple of days and I forgot all but the fundamental need to keep in one lump and free from perforations. Except for the three wrecks, the ships got away. Their departure gave us a dismal feeling of isolation as they'd been a link with the world of home.

Within a couple more days—by which time we didn't know whether it was Thursday or Christmas—our position became really serious. The enemy received strong reinforcements; troops and supplies poured into the northern end of the island, together with some tanks and heavy guns. Our panzer division of six Shermans became outnumbered by at least five to one. There was much sortie work by our remaining aircraft, much rushing to and fro of serious officers, much cleaning up and generally preparing for the holocaust we could all apprehend. Rather ominously, their planes left us alone and our pitiful few roamed the skies unchallenged. It was the calm before the storm; we could imagine them figuring it an awful waste to plant bombs on guys already as good as dead.

Patrols scavenged for prisoners, crept into the jungle and were beaten back after fierce, sanguinary encounters. There was now little or no sniping on the part of the Japs and their jungle remained a tangle of broken ferns, shrubs, bushes, creepers and shattered tree trunks over which brooded a heavy silence broken only by a temporary uproar when one of our patrols fought its way back. Quietly these patrols slipped into the greenery and just as quietly vanished, only to start some shenanigans before they reappeared.

It was trying to the nerves this waiting, waiting, waiting. You sit there knowing full well that the other guy is making all the preparations necessary to strew your guts over the landscape, and there's nothing you can do about it except curse the departed ships, curse the heat, and curse the blank indifference of the ocean which is all that lies between you and Maisie.

We got grim-faced and hard-eyed as zero hour dragged nearer. One patrol on our left flank got into the jungle, enjoyed a furious melee, and came out at half their original strength but with two prisoners. The sullen pair were rushed to headquarters for examination and soon the news got around: the yellow-bellies had been greatly strengthened and were ready to wipe us out by sheer weight of numbers, but the hour set for attack wasn't known or maybe they refused to tell. This news was given to the men so they'd know what to expect and prepare themselves to meet it. But the most significant item was that brought in by our own aircraft and now released for general information, namely, that the enemy's reinforcements had been brought in fifteen ships.

At once my mind sprang to the prophetic Wakko. What possessed me I don't know but forthwith I went to see Grumpy who happens to be Mister Big on this piece of dirt. He was busy, with a continual stream of grim-faced, thoughtful officers dashing in and out of his den. How I got in to him was a mystery in view of the hectic circumstances, but somebody showed me inside after the fourth officer had tripped over my big feet.

Grumpy gave me with his sharp stare as I stood stiffly to attention, and his voice barked, "Well, sergeant?"

"This sounds like a lot of malarkey, sir, but I want to report that there's a guy named Wakko breathing our air. I've seen him do things you wouldn't believe, and I figure maybe he could do plenty more if somebody pushed him around." From there on I poured out the story, condensing it and talking fast. All the while Grumpy sat there looking at me as if I were ripe for a mental specialist. "And that's the lot, sir," I finished, anxiously and a little lamely.

"Humph!" snorted Grumpy. Much to my surprise, he added, "I'll pass up nothing." He rang the bell on his desk. Somebody responded behind my back and Grumpy spoke to him over my squared shoulder. "Detain this sergeant until I require him. Find me a fellow named Wakko. No matter where he is or what he's doing, bring him in—I want him quicker than at once."

He gave me a wave of dismissal. Saluting, I swung about and got myself conducted to a small, hard room tastefully furnished with one small, hard bench. I squashed my cushions on said bench and kept them flattened for the next two hours. During that time, people continued to rush in and out of Grumpy's office while, far away and

at rare intervals, sounded faint pops of desultory small arms fire. Then, just as my spine began to protest at propping up my skeleton, Wakko walked in to my room.

He fixed me with those uncanny orbs of his and maintained the stare until I began to fidget.

"So," he enunciated in his low, vibrant voice, "the many must seek the aid of the few."

"Few what?" I asked, mostly to hear myself talk.

"Survivors."

"Oh," I said, blankly. I'd not the faintest notion of what he meant by his mystical gabble.

"There are a few survivors living on Mount Shasta, in California. You, as an American, ought to know that. Don't you?"

"No," I admitted, feebly. "Did you tell Grumpy about that?"

"If by Grumpy you mean Lieutenant-colonel Thompson, there was no need. He is a well-informed individual and had heard of us, though, as he confessed, he'd regarded the matter with a modicum of incredulity." He rubbed his beak of a nose with a long, slender forefinger and still stared at me glassily. "He was, of course, also skeptical of your data and he demanded that I make him lie on the floor with his legs in the air while he counted twenty."

"Good grief," I muttered.

Wakko frowned and went on. "When he'd finished counting and had got to his feet, he pointed out that Gautama . . . er, *America* has favored us with hospitality for which we should be in some small way indebted, and that anything I could do to ease the present situation would be gratefully acknowledged as settlement of that debt."

"Did Grumpy really shoot off that?"

"Don't you believe me?" he said, his tones sharp.

"Sure, sure," I hastened to say. I was wondering just who was the nuttiest of all us nuts.

"It was rather stupid of me," he confessed, "to have quite overlooked the fact that our residence in your country places us under an obligation. I had joined your forces for purposes of convenient investigation in this area, but now it seems that I should do more. However, the matter will be remedied as soon as possible."

"O.K.," I put in, getting tired of his airiness. "Just wave your hand and say the fateful words and make all those little yellow buggers go up as pale green smoke."

His eyes glowed and spat fire at me. I couldn't see them because I wasn't so simple as to look straight into them, but I could feel them, somehow.

"I perceive your thoughts. They are nonsensical. Whatever I have done or am about to do comes from realms long forgotten and from a knowledge that may yet be recovered wholly rather than in part." He paused, and added, spitefully, "Recovered, aye some day when once again this world is civilized."

"All right, all right," I protested. "Be as civilized as you like and kill the lot."

"I shall not kill one," he pro-

nounced, carefully. "We are far beyond senseless slaughter. There are other and equally effective means. You will come with me to assist—it is Lieutenant-colonel Thompson's order."

Now this, thought I, is the pay-off. My big trap had got me in bad. I was doomed to some desperate venture with this crazy coot and my hours were numbered. While Maisie cried out her pretty eyes way back in Dallas, I was going to rot in company with a few yellow-bellies and this Californian swami. Life is short and the end comes suddenly and why didn't I trap my tongue in my teeth?

Wishing that someone would blow Mount Shasta all over the states, I followed Wakko out.

We made a beeline for the wrecked vessels in the bay, and there, with the help of a dozen bodies, we got all their radio lumber ashore. Walking round and round the pile, Wakko looked the stuff over, occasionally picking up bits and putting them down again. There was a lot of stuff; I'd never suspected that ships carried so much of it.

The sun was high and hot, and a strong, salty smell came from the sand of the beach. Eventually satisfied, Wakko sent me off with a guy who claimed to be a one-time electrician. We were to find out which of the vessels, if any, possessed generators in working order. While we did this, he was to go and examine one of the Jap prisoners and look around for some other item of equipment which was necessary for the plan he had in mind.

Twenty minutes after we'd come away from the third vessel Wakko got back to the beach. Only one ship, we told him, had undamaged generators, this being the freighter stranded in the shallows within easy reach. This news afforded him much gratification. He'd dug up more guys from somewhere, three of them being signal men, while the other three were electrical engineers. The latter were on board the freighter to check over the generators and run power lines ashore. The rest of us got down to the job of moving all the radio lumber to the hut at the head of the beach.

There, Wakko appointed me as overseer on the task of erecting tall poles at spots designated by him. We got busy on the job, putting plenty of beef into it, while Wakko and the signal guys dived into the hut and started on whatever cock-eyed notion Wakko had thought up. Those poles were erected in record time and I dragged Wakko out to demand what next. He went back into the hut, came out with a reel of heavy wire and a pile of insulators. In crisp, incisive tones he told us just how he wanted the stuff fixed. I don't know anything about radio, but one of my handymen who claimed to be educated said that what we were shoving up was a directional aerial with a splayed beam aimed northward.

"You going to kill them with boogie," I inquired.

"I'm too busy for small talk." Wakko shot back into the hut and

slammed the door.

Well, we got the aerial fixed in double quick time, with a nice length of feed-line extending to the hut. We'd been working like mad since arriving at the beach and time had flown fast. The sun was sinking slowly, and the island was still quiet, expectant, tense. There had been no further sign of Wakko; whatever he was doing, he was buried in it. Getting curious, I shoved open the door of his hut and eased myself inside.

A carpet of bits and pieces lay all over the floor. One of the signal guys was percolating some coffee in a coffee pot, the other two had their jackets off, sleeves rolled up and a soldering iron in one hand. Both had slightly dazed expressions on their pans.

To one side, the lean and hawkish Wakko was bending over a large sheet of drawing paper on which he'd penciled a large, complicated and obviously haywire sketch which resembled a surrealist version of snakes and ladders; it was full of squares, double lines, arrows, numbers, spirals, wiggly bits, and several circles with zigzag lines across them.

"Now," he said, ignoring me, "we'll require that four-mike condenser across this inductance, and we'll put this other inductance in series with it. We'll earth that last one and tap it at the third turn from the earthy end."

"Yep," quote one of the guys, feebly. "Sure!" He did things with his iron, plunging it into a mess of apparatus, making a puff of smoke, a sound like someone frying an egg, and a smell suggesting that said egg was being fried a year too late.

Wakko had a look at the result, turned back to his sketch and came out with another string of the same gabble.

"Now, using that tap to create on auto transformer we can take this other lead to the signal grid of the first power amplifier via—"

"Oh, heck!" I said.

"Shut up!" He glared at me, got on with his double talk. It was a hodgepodge of capacitances and master oscillators and bleeder resistors and similar cuss words from the Shastan language. I couldn't make out how those signal racketeers could understand him unless he'd miraculously inoculated them with the patois in five minutes flat. Anyway, they kept doing things with accompanying smoke, noises and stinks, and he kept checking up that they were doing them properly and to his complete satisfaction. "This resistor hooks on there!" He pointed into the middle of the mess and a guy obediently stabbed his iron at the point indicated.

Sitting on a box, I hooked one leg over the other and watched. There were radio tubes and bits of wire and coiled copper snaked all around. The apparatus on which these nitwits were working was only partly completed, but big, imposing, and patently the product of an insane brain.

Lines from the distant generators ran into its base and, from that

point you could go gaga trying to trace them. At one end of this contraption stood a neat box which I recognized as the force's portable talkie; I could see the lens of its projector glistening behind the flap. All that was wanted, in my estimation, was an aspidistra, two bird cages and a cuckoo clock to finish the thing off.

It was little short of nightfall when they finished struggling with this junkpile, by which time I'd taken over the role of coffee dispenser and was brewing the fourth successive bucketful. The apparatus now filled half the hut and the signal guys looked ready to fill their graves. We all stood around and looked at what we'd perpetrated—and there just wasn't a word for it. There was no sound inside that hut and no noise outside of it. The whole world was hushed and waiting for the blow-up.

At this point Grumpy suddenly paraded in with two officers. He looked at the Goldbergian gadget, flinched, and said, "Well, is it ready? Will it work? What does it do?"

"It is not ready," answered Wakko. "Nor will it be ready until I get that film. And until the film arrives there's no way in which I can determine whether this layout will do what it is designed to do."

"Then get it man, get it," snapped Grumpy, testily. He turned to one of his officers. "Go to the photographic section, Mr. Mead, and see what is holding up this film. Chase it along without further delay." As the officer beat it, he went up to the apparatus and gloomed over it.

I'd a lot of respect for the old fogey just then. He was one of those bold tomatoes who don't let their doubts strangle their imagination. He knew the surprise-value of unorthodoxy and was willing to back a longshot. He was a good guy.

Snooping around the dingbat, Grumpy opened his mouth to say something and must've swallowed the sun for, as it does in these parts, darkness fell with a silent bang. Imperturbably, Wakko switched on some lights. Grumpy opened his mouth again and immediately hell broke loose. The whole midpart of the Island erupted with deafening violence that shook the southern end and set our hut quivering and quaking in every wall. Zero hour had arrived.

The unbridled fury of that cannonade had to be heard to be believed. It lit up the northern sky with a series of pink and white flashes that followed each other swiftly enough almost to merge into a continual glow which wavered and shimmered against the sable backdrop of night. The whole thing was a compost of light and sound; of flickers and glares and sudden blazings plus crumps, whines, shrieks and the infernal bursting of heavy shells.

Grumpy went out so fast he was just a waft of wind through the door. He yelped something as he vamoosed and one officer stayed behind while the other hotfooted after

him. While the distant uproar gradually built itself toward crescendo, the officer stared at us and we stared helplessly back at him. If his mind was working along the same lines as mine, he was thinking that his number was up unless Wakko miraculously produced.

Come to ponder about it now, I realize that it was my own subconscious desperation that got me rooting for the Californian character in the first place. Yes, that's what had driven me to Grumpy—fear mixed with idiotic hope. In any other circumstances I wouldn't have bet a bad dime on a nuthead like Wakko for, despite all his sales talk and demonstrations, I really had no faith in him as a superman. But the

grim knowledge that the jig was almost up had impelled me to clutch at him like a drowning man clutching at a lump of lead.

Wakko was the least concerned of the lot of us. Lounging easily against a bench, he listened to the mighty roar of the northward bellowings. The Nipponese evidently had landed some heavy caliber stuff because big ones started to crump uncomfortably near to us, and one item went overhead with a tearing moan like that of a railroad locomotive crossing a trestle bridge. It didn't burst, though. It was a dud. Wakko heard it pass over without blinking and without shifting his expectant stare from the door.

"If they're too long, they'll be too late," he remarked, as though it were of little consequence anyway.

Before anyone could think up a morale-raising crack, the door whipped open and a dirty, breathless party shot in. He had a can under his arm and an unhappy expression under his hat.

Slapping the can into Wakko's eager fingers, he said, "There y'are. Gotta get back," and with no further ado he was gone.

Tearing the lid off the can, Wakko lifted out a six-feet length of cine-film. It was a continuous piece, its ends being lapped together so that it would run repeatedly for as long as it was driven. He held a section up to the light, examined it carefully. I could see that it was blank except for the sound track which bore a most peculiar wiggly line that repeated itself all the way around the strip. Those wigglers reminded me greatly of the cartooned sound track in Disney's "Fantasia."

"This," said Wakko, addressing the officer, "is the response curve of the nervous system of the average Japanese. All Japanese are somewhat the same, responding within the limits of this curve. The potent curves, or wave forms, for racially different nervous systems would, of course, also be different to a greater or less degree according to the race." He cleared his throat, looked like a college professor lecturing with bland disregard of dynamite under his chair. "The response curves of average Caucasians or Polynesians would therefore be different—but this particular curve effectively covers the Japanese. Don't ask me how I know. You must accept that I do know."

"Go on," urged the officer.

"If you've ever shivered upon hearing a knife squeak on a plate, you'll know what can be done by the merest fraction of your own particular curve." Dexterously, he fitted the film into the various sprogs of the projector, his fingers moving neatly and with urgency. "Well, this is the whole lot. It won't function as audible sound, but it's the impulse necessary to gain the required effect and boost it to the limit." He finished with the film, started to switch things and tune others. A shell whistled high over the hut, thumped and exploded well to the rear.

"Hurry up," pressed the officer.

"Yes, for Pete's sake," I said.

"Now I translate this visual wave form in terrors of varying voltages, impress them on the grid of this tube here, and thus convert the original curve to an audio-frequency modulation of a suitable carrier wave. The amplification will be the maximum possible with the materials available and the output may or may not be sufficient—that remains to be seen. But, with luck, we'll make their nervous systems twang like the strings of a harp." Giving us a glassy-eyed glance to make sure that he had our undivided attention, he slammed down the master switch. "There."

It would have been nice to read the minds of the onlookers as that switch went down. Judging by their expressions, the officer expected a demonstration of fireworks, one of the signal guys anticipated an organ recital and the other two hoped for the ghost of Napoleon. All that did happen was that the film started to run at top speed although no flickering beam sprang from the lens of the projector, something deep in the middle of the apparatus emitted a noise like that of a disturbed beehive, and the various tubes lit up brightly. At the same time, a prolonged hiss sounded not in my ears, but somewhere within my brain. One of the signal guys must also have registered that hiss for he asked Wakko about it. He responded with a lot of hooey about the knife-squeak being the equivalent of the bass note and of stuff that made dogs howl although most humans couldn't hear it. He added some abstruse stuff about sub-harmonies and staggered multiplications which was just a dollop of abracadabra to me.

Meanwhile the tubes stayed lit and the eerie hiss stayed put. This performance went on for a minute, or maybe even two minutes, while Wakko stood by his apparatus and listened with the first touch of anxiety I'd seen on his lean face. Then, suddenly, the volume of the barrage dropped about eighty percent.

"Success," snapped Wakko. His beak of a nose quivered with satisfaction. "The beam is working."

I couldn't see that. One only had to listen to hear the bombardment still going on even though its uproar had been reduced by four-fifths. But I didn't argue—there's no pay-dirt in an argument with that yogi. Taking our cue from him, we hung around and waited while the apparatus continued to do whatever it was doing, and the guns in the north maintained their reduced whoopings. After a quarter of an hour, those guns gave up also. The resulting quietness was ghastly.

"The battle is ours," informed Wakko. "They'll be mopping up now."

"Hey," I put in. "How come all those guns didn't stop at once?"

"The enemy's artillery did stop," he said. "You forget that part of the bombardment was ours. And our guns carried on until the necessity had gone. Then they ceased fire and, doubtlessly, the infantry went forward." He turned to the officer, who appeared thoughtful,

subdued. "I'll keep the beam in operation, sir, until Lieutenant Colonel Thompson asks me to close it down. Would you get him to send me a runner when he's ready?"

"Sure." The officer went out. He was like a guy who's just seen the Indian rope trick but still believed that it couldn't be done.

I beat it too, leaving Wakko in the hut with his dumfounded signal men. The sky was a star-spangled drape now devoid of gun flashes and the glowings of bomb bursts. From the north came a faint, elusive murmur as of things still happening but with a minimum of noise. The strange hiss in my brain persisted. From the sluggishly lapping sea came a faint, warm breeze and a tang of salt.

What with one thing and another, including a brief sleep, it was six in the morning before I found out what had happened in the north. Most of my buddies were up there through the night and I couldn't find anyone until, just after dawn, I met Youbet. He was tired and dirty, but had the air of a man who'd put his pants on a gopher and seen it win the Kentucky Derby.

"Brother," he told me, "it was like nothing you could dream up, you bet! The yellow-bellies were presenting us with a big package of concentrated hell, and right in the middle of it their guns gave up. Big guns, small guns, popguns and bows and arrows, they all gave up together." He stuck a cigarette into his dirty, brown pan, lit it. "So we waited for the attack while our own guns continued to burp. The attack didn't come. Eventually, we got the order to go forward and we sneaked into the jungle with our bellies full of butterflies, you bet!" He squirted some smoke. "You know how one feels."

"Y'betcha!" I assured him.

He gave me a suspicious look, but went on, "There was no mad bull rush. We crept through the bush wary for mines, booby traps and snipers. All the time, I had a queer, high-pitched singing in my ears and made up my mind to take a shot of bromide if I was still alive in the morning. I was still thinking about the singing and the bromide when I came face to face with half a dozen Japs." He paused, spat into the sand. "They were doing a dance."

"Huh"?

"They were jitterbugging," he asserted. "Like this." He got up, violently shook his arms and legs, made his whole body quiver. "Just like that, only worse. They were hep-cats, you bet! Four of them had dropped their guns; the other two were still clinging grimly to theirs but were waving them around like conductor's batons — they couldn't control their jerking muscles to take aim or fire. As I watched they kept falling down, getting up clumsily and shakily, then continuing to flail around." Taking another drag at his cigarette, he gazed reflectively at its glowing end. "The queerest thing about it was that they weren't in any pain. You could tell from their grim expressions that they weren't suffering

in a physical sense and that they were doing their best to control themselves, but the heebies had the better of them. Each one of them had a vicious attack of St. Vitus' dance and it was utterly beyond control."

"Did you bring them in?"

"You bet. And it was a job. They were docile enough to try and do what they were told but, brother, what a time they had doing it. You couldn't make them march. They hopped and skipped along, jerking about like marionettes on strings and falling over their own feet every ten yards. The sweat poured off them with their own crazy exertions. They stank in my nostrils and that singing shrilled in my ears —and still does right now. But I got them boxed away and went back for more."

"Were they all that way?" I asked.

"All those still living were," he answered. "Our barrage had wiped out a fair number of them. We'd only one fifth of their fire power but we'd been five times more accurate. There were plenty of stiffs lying around and the survivors were doing a saraband over the bodies. We found cooks and generals and gun crews all bouncing around like no-how. It was the same all the way through to the northern promontory where even the crews of Jap ships were in a rut just offshore." He yawned, stretched his arms. "If this is war, it's wacky. I'm going to get myself some shut-eye."

"You've had quite a party," I commented.

"You bet!" he said. And, with that, he went.

But he couldn't have got much shut-eye because within another hour the shuttle service poured over thirsting for revenge. The hiss in my brain was gone, and I reckon the beam had cut off, or maybe it didn't go sky-high and the planes were flying above it. Whatever the reason, they came over and zoomed around unaffected by anything except our antiaircraft fire.

There was a devil of a number of planes, far, far more than any armada they'd favored us with before. They concentrated first on our battered airfield, blew to bits those of our fighters still grounded, lost several of their own kites in the process. Those of our machines which had become air-borne in time, waded in against terrific odds. Nothing fazed the enemy, for they started methodically to blast the whole southern end of the island. their bombs showering down like over-ripe fruit.

Nice though it would have been, I wasn't holing-up in this holocaust. Tearing along with frequent pauses to fling myself flat, I made for the hut and Wakko. If he knew of some way in which to elevate and sweep his beam, he'd need all the help he could get. Between us, if we moved fast, we might make a spectacular clean-up of these aerial invaders.

Our guns were handing out plenty and their shells made gray puffballs all over the sky. The Japs whizzed recklessly between the

smoky blooms, sometimes diving straight through them. Their loads screamed down with a spine-tingling sound that isn't so good to hear. Not only were original guns banging at them, but also the weapons on the broken ships in the bay plus a number of serviceable guns captured from the enemy that night. The whole performance was fast and nasty, complete with earth-gouts, ground quakes aerial explosions, heat, and assorted smells of warm sand, burned cordite, rotting vegetation, dry seaweed and sweat.

My legs passed each other as they'd never done, shrapnel spattered around me, a shell exploded far to my right. I cursed the A.A. defense and its slow fuses. A high shriek came at me out of the sky, I went prone, tried to dig my way through to South Africa. The bomb landed, went off with the mighty whoop of an exploding cosmos and the ground under me shook like jello. A great cascade of dirt stung me as I was up again and running.

Then I saw the hut and its adjoining antenna. Outside of the hut, and at the head of the white beach, Wakko stood staring pensively across the bay just as if all the surrounding excitement was taking place in another world. I yelled at him, but my breath was short and he didn't hear me.

Then a tremendous load came down and I groveled abjectly in the earth. The stuff landed. There must've been three dozen of them, and most of them big. Two of the three wounded ships promptly disintegrated in tremendous bursts of flame, the fury of their disruption causing the remaining vessel to rock violently as it continued to fire. Great shafts of water sprang out of the bay, and equally great columns of driven sand reared themselves frantically from the beach. The hut went up in one mighty vomit of radio parts, dirt and bamboo splinters. The poles of the antenna flew apart.

Marveling at my own escape, I sprinted forward, found Wakko lying in the silver sand. Some of the silver had turned a bright crimson. His middle was all churned up, but he was still living though unconscious. Making him as comfortable as I could, I beat it and found stretcher-bearers.

He stirred weakly as we carried him away, spoke to me in a low, laboring voice. "Help is coming, I think. I was watching the air trails over the horizon. A great battle is ending far out in the ocean and twenty ships are heading this way." He paused, tried to cough, but couldn't. "They are almost certain to be ours, and they ought to be here by tomorrow night."

The bearers took him from sight into our underground sick bay. I didn't get another chance to look him up until an hour later. The Jap aircraft had now gone, our men and their prisoners were busily burying the dead, unearthing mines, removing booby traps and collecting unexploded ammunition.

The guard wouldn't let me in until Grumpy arrived and took me in with him. Wakko was lying in

a cot. They'd removed his contact lenses, which made his eyes look sunken, tired. He was white and obviously hadn't long to go. His lean face, deep-set optics and beak of a nose gave him the appearance of a crippled eagle.

Taking hold of Wakko's thin hand, Grumpy spoke in his usual harsh voice, said things that made me blow my nose. He smeared Wakko with plenty of lard and Wakko took it all without uttering a word. But when Grumpy had gone, he opened his mouth and his Adam's apple wobbled. His voice was so low and weak that I could scarcely hear it. I put my ear nearer.

"Don't let them put me in a hole in the earth." The way he looked at me suggested that this was as much of an order as a request. "Give me back to the Great Enemy." He sighed, quieted, then added, "Let me sink to the Lost Ones, where with them I may drink of *aina wai-ola a Kane* . . . the living waters . . . of Kane." He closed his eyes.

"Listen," I urged, my mouth close to his ear. "What d'you mean? Who's the Great Enemy? Where's this place you call Kane?"

He was silent a long, long time. Finally his lips moved and he murmured, briefly, "Bury me at sea." The next moment I knew that he had gone.

I covered him up. He'd been a weird specimen, without any doubt. All his double-talk had me completely fuddled; his references to the masters and the spreaders of manure in outpost fields of ancient days, and the Great Enemy, and this place called Kane, and things that didn't have to be invented but only remembered. Was this Great Enemy the eternal ocean and, if so, why? I wouldn't know. But he was a good guy in his own strange, oblique way and I was going to miss him a great deal.

Although Wakko had gone, and all his gadgets too, we weren't yet quite finished with him. He got in yet one more good crack. It came about when Grumpy summoned me to tell what little I knew about Wakko's cockeyed apparatus. Grumpy had organized a frantic search for data about this but without any luck. The wholesale bombing hadn't cost many lives, but it had made an awful mess of property stores and equipment. The signal guys and the potent diagram had gone up with the hut. The original curve had gone west and the film reproduction with it. Wakko's bloodless nerve-buster had returned to the mystic past from which he had exhumed it.

So I stood and perforce waited outside Grumpy's holed and creaking office while he finished a discussion with the senior medical officer. The door was ajar, I couldn't help getting an earful of the conversation.

The latter was saying, "Well, colonel, you to your views and I to mine. But natural causes always appeal to me more than explanations which . . . ah . . . can be classified as occult."

"This man was no occultist," growled Grumpy.

"But, my dear colonel, you cannot deny facts. It is a fact that the Japs have been stuck in these islands some months longer than our own men. It is a fact that they've had to subsist on a quite inadequate diet peculiarly poor in nerve-foods. Also that they've been subjected almost continually to more stringent forms of regimentation, bombed, raided, shot at, and finally shelled with remarkable accuracy. Above all is the fact that their typical psychological make-up is extremely brittle, causing them to be brave and even fanatical until they crack—and when the crack comes, it is swift and complete."

"Plausible but unconvincing," said Grumpy, stubbornly.

"If you know as much as I do about mass reactions you'd be more easily persuaded," riposted the medical officer. "Mob hysteria is a study in itself. Some religious revivals have been sweet samples of it. Remember that Martian broadcast by Orson Welles? I say that some of these Japs got shell-shocked and some others cracked and that both of these had their effect on their overstrained fellows with the result that the crack-up spread. Their muscular agitation is clear evidence of starved nerves. The fact that they collapsed soon after this so-called transmitter got working is, in my opinion, pure coincidence. The loss of the apparatus is of no consequence and it is a waste of mental energy to trouble our minds about it."

"Have it your own way," Grumpy rumbled. "I choose to differ. Maybe it's only a bee in my bonnet and maybe not, but I feel that this man Wakko had got something." His horny hand whammed down on the desk. "And I want to know what he'd got!" There was silence for a moment, then he went on, "Your explanation doesn't cover other phenomena. For instance, I happen to know that this Wakko was a mesmerist of no mean order. He tried some on me, and it worked. I've since discovered that he was also something of a prophet."

"Prophecy," sniffed the doc. I could imagine him waving a deprecatory hand. "I've come across prophets before now. They are experts in the art of concocting broad ambiguities. Let one prophet give me one plain, clear and precise forecast in simple, straightforward language and, if it comes off, I'll change my opinions."

At that point I'd had enough. I knocked, marched in, saluted. Old Grumpy glowered at me under his bushy brows.

"You sent for me, sir?"

"Yes, I did."

"Before anything else, sir, I'd like to say that Wakko gave me a message for you."

"Indeed? What is it?"

I hurried up because the doc was gathering some papers into a bag and making ready to leave.

"He said to tell you that twenty ships are coming and should be here by nightfall tomorrow."

"Radar could tell us that," remarked the doc, closing his bag.

"The radar installation was blown to pieces more than a week ago," said Grumpy. I enjoyed the nasty edge he put on his voice. "Scouting aircraft could also tell us—only there aren't any aircraft."

"Humph!" contributed the doc. He added something under his breath—it sounded to me like, "Lemurians, silly, pfaugh!"—then he snatched his bag and went out.

We didn't forget each other, the doc and me. Wakko's long, skinny, tarpaulin-wrapped form sank through green and sunlit waters toward that place he called Kane, and when it had disappeared in the darker depths I leaned on the battleship's rail and looked around. There were two cruisers in the bay. Anchored just outside, off the southern headland, were five transports, two aircraft carriers, nine destroyers and a big tanker. They'd arrived last night, half an hour before darkness closed in. They made a nice, neat total of twenty vessels.

Somewhere just over the horizon another force was battering the Jap air base. The warm breeze brought with it the dull mutter of distant guns. Fighter-bombers and torpedo-bombers rolled along the deck of the nearest carrier, boosted their engines, took off and shrank to dots in the general direction of the far-off battle. The enemy's shuttle service was in process of compulsory liquidation, and things looked good.

"Twenty ships—last night," recited a small voice in my mind.

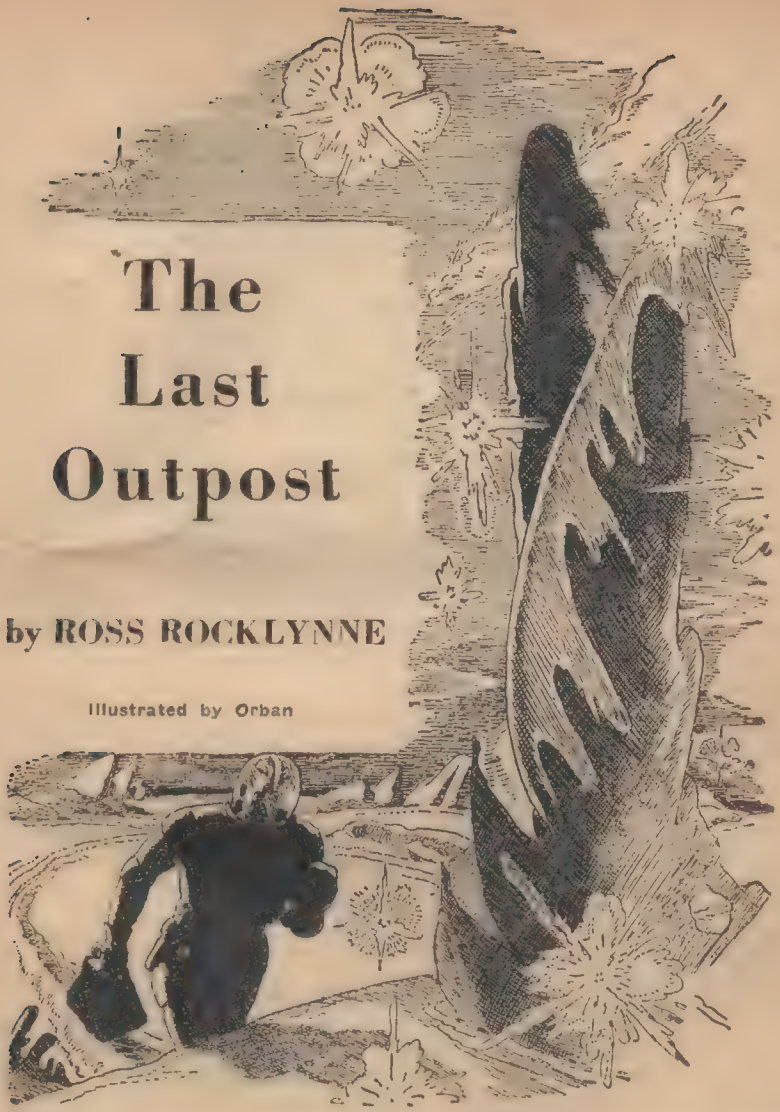
Leaving the rail, I walked along the deck, met our chief medical officer and bestowed on him the officially required adulation. He responded like an automaton. He didn't say anything and I didn't say anything—but he gave me a funny stare.

THE END.

The Last Outpost

by ROSS ROCKLYNNE

Illustrated by Orban



Man had found no trace of non-terrestrial life anywhere. None on Mars, or Venus, or the other planets. And Man was giving up—but a man made a great discovery, and he was very wise . . .

All the men seated around the mess table that morning were quiet, thoughtful; even down to Sparks, who was always good for a jaunty remark under the worst circumstances. That was probably be-

cause Sparks was the only one of the twenty-odd men who ever had any voice-to-voice communication with other parts of the Solar System.

Commander Arnold Bruys sat at the head of the table, wishing they would make some noise. Rattle a fork in their egg plates, stir their coffee a little noisily. Or maybe mutter a little about the shrill wind that was rising from the air snow as Pluto turned its face toward the sun. But it looked as if they were all determined to become neuropaths.

Commander Arnold Bruys finished his breakfast with an irritated clatter and scrape of coffee cup and chair.

"I want you men to stop this brooding," he said, when the men looked up. "After supper today, we'll hold a meeting, and then we'll decide what's to be done."

Sparks, his rusty face twisting in astonishment, said, "Was *I* brooding?"

"You sure were," smiled Bruys. He dropped his napkin on the table, and started for the door, talking as he went. "Sparks, phone me in the next hour if you have any luck raising the supply ship. You might as well get me an audio connection with the Triton Outpost, too. All the cosmic-ray men are to correlate their findings on lunar strength today, by the way; I want to finish the ten-year report. Radiologists, same. Jonesy— Say, where is Jonesy?"

Bruys stopped with his hand on the door to the passageway, looking at the empty chair where the man few of them really liked, or knew well enough to like, should be sitting. Funny, he'd simply overlooked Jonesy's absence until now.

Nobody could explain where Jonesy was. There was a mute shrugging of shoulders. Truth was, few of the men cared where he was.

"Probably went out before sunrise and hasn't come in yet," one of the men said.

"He knows the sun'll melt his tracks, too," said the geologist Professor Arthur Dessen, who'd had a personal grudge against Jonesy ever since the fight about the manicure scissors.

"Well," said Bruys hurriedly, not wishing to stir up old animosities, "if the Doc comes in send him in to me."

Some of them called Dr. Erwin Jonestone "Doc," others Jonesy. Both appellations, however, had a derisive connotation. Sometimes, but behind his back, they called him the "life expert." This was because, among his other diverse studies, he openly considered himself a zoologist, botanist, biologist, embryologist, paleontologist, endocrinologist. His only degree was in medicine. The Dallas-Hortley Foundation, which was "sponsoring"—quotes to be explained later—the Pluto Outpost, had included Jonestone on his own recommendation. To Jonestone was given the task of discovering life on Pluto. If any.

Commander Arnold Bruys swung

down the passageway, on either side of him the sleeping quarters. Bruys was handsome, with that distinguished bodily and facial good looks which men seldom carry into their forties. His arms and legs were muscular, his shoulders and chest those of an athlete. His mellow, olive tan, and black hair which composed itself in ringlets, gave him the appearance of Greek extraction rather than Belgian.

The Outpost was arranged like a figure eight. The sleeping quarters and mess hall and galley and laundry were centrally located; the smaller bulge was given over to the "sky" men—specialists in astronomy, radiation, solar weather; the bigger bulge belonged to the "ground" men—those who studied Pluto, which, after all, was the purpose of the Outpost. Bruys, commander of the Outpost, had come to consider himself a "grounder." His quarters and adjoining office-cubby were at the head of the bigger bulge.

When he got into his office, he slid the partition away from the curved window. He looked out on Pluto. Straight away from him, one foot over the horizon, the sun was coming up. It was very small, and yet it was the brightest, most welcome object in these unfriendly skies. As the sun rose, it would appear to grow bigger, for the air-snow, hovering just at the freezing point, would turn into atmosphere with the warmth. The sun would magnify, winds would blow—

Yes, thought Bruys with a frown, the winds and the heat, such as it was, would sweep away the Doc's footprints; the only means of tracking him down.

But he shrugged his shoulders with a great stretching movement and sat behind his desk, looking through drawers and humming a little with the air of a man who is fully ready to begin a day's work. There was no need to worry about the Doc yet. It would take the sun forty-six hours to get to noontime; there would still be lots of air-snow left on the ground. Anyway, it was likely the Doc would come in of his own accord.

Bruys spent some time musing over the storekeeper's report. Not enough food, not enough food—

The dictaphone buzzed. Bruys clicked it on, leaned his head over. "Yes?"

"Sparks," said Sparks in a businesslike tone. "I've been sending a signal, but there hasn't been any answering signal. No supply ship within a billion miles."

Bruys' strong white teeth clamped. "What do the Dallas-Hortley people think we're supposed to do? Wait here and starve? Two months overdue and still no sign."

"Yeah," Sparks groused. "Probably the ship hasn't even started."

"Don't be absurd," Bruys said coldly. Sparks was silent. Bruys added, "Do the rest of the men feel that way?"

"They feel," admitted Sparks, "that our ship never will come in. Everybody says the Foundation has thrown us over."

"Why would they do that? Speak up, Sparks; if you can give me a fairly accurate summation of general opinion, it'll be valuable to me."

"Well, nobody agrees. Some say it's the expense. An expedition like ours can't make any money, of course, but even from a long-range viewpoint there won't be any returns. Pluto is frozen over even at noontime. Colonization will be impossible as far as taking care of surplus population. Mining for heavy ores is out of the question, because freighting will absorb any final profits. There aren't any waterfalls for power. And there can't be any coal, because there never was any life on this blankety-blank—"

"Who said there wasn't any life? Jonesy?"

Sparks laughed. "Not *him*. He never will give up. Chief, *everybody* knows there isn't any life. Just like Mars, Venus, and the rest of the shebang."

"That will be enough," said Bruys grimly. He felt a strange inward pang, for some reason; as if his good spirits and sense of well-being had been punctured. "Until Jonesy gives me his final report, it's our place to manufacture no opinions either pro or con on the question of life."

"O.K.," Sparks shrugged, a "have-it-your-own-way" note in his generally bouncy voice. He added suddenly, "Oh, yeah, chief, still on the same subject—Jonesy thinks it isn't financial at all. It's psychological, he says. Frustration, not only the Foundation, but everybody, all over the Earth. The guy is nuts."

Bruys sighed. It was strange the way Jonesy kept on popping into conversations, generally with derision. Maybe it was because all the rest of the men carried on a desultory routine, having lost all interest in their own researches; while Jonesy kept on bustling around, with his funny, wrinkled, bulging face, and intense blue eyes behind his rimless glasses and shock of sparse gray hair always mussed. By deriding him, they protested against his unconscious denunciation of their own inactivity. Too, he was probably the scapegoat onto which they could pour their growing discontent. And the less attention Jonesy paid to them, the more attention he paid to his work, the more that feeling grew.

Jonesy was really impregnable, though. He had no sense of humor and no conversational powers. His mind was a closed door to most, and his laboratory was locked to all. He studied his specimens in secrecy, he emerged only to gulp his meals or to leave the Outpost. Now, he had even the cook against him, for his habits had developed a duodenal ulcer, and he had to live on a special diet. Bruys sighed again. He could feel tension building.

"Well, never mind that, Sparks. You called Triton?"

"I called Triton." Sparks hesitated, giving the words a grimness. "Yeah, I called them," he said dryly, "and they don't answer."

"Don't answer!" Bruys forgot himself. He blurted the ejaculation, half rising. Then he subsided. "What d'you mean, don't answer?" he snapped.

"Well," said Sparks, "I gave them the old ding-a-ling and snapped the switch-on to the receiver. Only nothing gave. Dead silence. Either the boys didn't feel like talking or the boys ain't there any more."

"Something's wrong with their transmitter!"

"Nope. Transmitter and receiver both working fine yesterday. Remember, chief"—Sparks' voice became dogged—"there ain't any use fooling ourselves. I told you how nervous that Triton operator was yesterday. Their supply ship is overdue, too—about a month, the Triton keyman was telling me. Everybody at the Triton Outpost was plenty disgusted. They were thinking of pulling out."

A fine sweat moistened Bruys' palms. "They were *thinking* about it," he said harshly. "They'd have told us if they planned to leave. See here, Sparks, ring them again!"

"O.K.," said Sparks, with a vocal shoulder-shrug. "O.K.—"

Bruys got up and prowled softly around his quarters, picking at his fingernails, swearing softly under his breath, until he realized that he was losing his grip on himself. Then he stopped by the window again—really a transparent section of the hermetically sealed Outpost—and stood there, sweeping the bumpy, snowed-under terrain with hard gray eyes. That was Pluto. Everything covered with air-snow. Some mountains very far in the distance. Breezes picking up the snow and carrying it in windrows against the spaceship hangar, which was connected to the Outpost by underground. That fool Jonesy! There wasn't any magnetic declination on Pluto, so a compass wasn't any good for finding your way around. He'd have to follow his own footprints back. Only, if he stayed out there too long there wouldn't be any footprints. Then they'd have to send a party out after him the way they did one of the other men a couple years back, when Bruys had first taken over the station. That man, a radiologist, had gone quietly psychopathic after three years at the Outpost without a leave. He had wandered away.

Psychopathic. Yes, that could happen to any of them here, stuck away from their families and friends for too long a time. Jonesy, come to think of it, had been here for three years straight, longer than anybody else. But he didn't have a wife and family. He was married to his researches. Jonesy a psychopath? Impossible. Nuts, maybe, but only in the colloquial sense.

Dessen. He'd been here two years, came with Bruys. Too much an extrovert, with an extra belly and a good appetite, to let anything get him. Besides that, he and most of the others were good healthy gripers. They blew off steam, which psychologically was very good. But at breakfast this morn-

ing, they had been moody. Maybe the first sign.

Bruys walked restlessly again. Finally, he opened the door into the circular space around which ten laboratories were grouped, all with closed doors, each with a name printed on it. Bruys hesitated as he heard a burst of laughter from Dessen's lab. It sounded as if most of the grounders were gathered in there.

Dessen was saying, quite clearly, "Not *me!* I'll not go poking around the snow for rocks. Wait 'til the snow sublimes, then I'll take a pick and shovel and get my samples."

They had been laughing at Jonesy, naturally.

Dessen continued, with a strange intensity. "Besides, what good are my researches now? I worked at the Triton Outpost for a year with Broadhurst. I've got all his data on Triton. Rock for rock, stratum for stratum, Triton and Pluto are the same. The same collision or Solar explosion or whatever that made Triton, made Pluto. Two children with the same mother."

"Maybe that's the reason the Foundation isn't sending the ship," someone suggested, half-jokingly.

"*Maybe?* It's a cinch. If Triton's the same as Pluto, except for size, why collect duplicate data?"

"But of course," defended the other, "geology isn't the only science. I've collected some very unusual seismological data."

Dessen spoke with hurried graciousness. "Naturally. Naturally geology doesn't hog the whole show. As far as that goes, the fall of lunars—cosmic-ray units—is definitely greater on Pluto. But whatever it is, you can bank on it the Foundation won't send the ship. They've decided to close up the Outpost."

"Well, why in the name of Heaven don't they tell us that?" Covenger, assistant to Dessen, spoke for the first time.

"Where," Dessen demanded sarcastically, "have you been all your life? Legally, they can't close it up. As long as the Outpost is working, with men in it, it must be supported by the Foundation. What the directors are doing is faking the records. The records will show that a supply ship was dispatched. In the meantime, we keep on waiting for the supply ship, because we travel on a thin margin. When the margin gets too thin, we pack up and leave and close the Outpost. Go back to Earth. Which is what the Foundation wants."

Nobody had anything to say to that, except for one man who used to have a subscription to a small, progressive newspaper. This paper had revealed that several steel corporations had put pressure on the Foundation to close down several outposts on the asteroids. It seemed as if the asteroids were near enough to Earth to provide Earth with unlimited quantities of high-grade iron-ore at very low cost.

The method of closing the Outposts had been the same as that Dessen had outlined.

"That's right," agreed Dessen, cinching the closing argument. "The business interests of Earth may have some ulterior motive for squeezing us out. Who knows? But whatever it is—we're *squoze!*"

The men laughed again, nervously, and Bruys, sick at heart because he himself could think of no counterargument, went back into his office. Just as the door clicked, Sparks called again, wearily. "Nope, nope, they don't answer—"

The cosmic-ray men and the radiologists brought in their reports, and Bruys busied himself making notations in his big report book. The number of lunars per year on Pluto for the last ten years had been falling steadily. This might to some extent prove helpful later on for the first interstellar trip, because it showed the direction from which cosmic rays might be coming. It was possible that Pluto might be moving into a vast shadow cast by cosmic ray-absorbent clouds of matter hundreds of light-years away. If so, the first interstellar ship would move outward from the System under the protection of that shadow—Only, Bruys thought with sudden insight, now that they were closing up some of the Outposts, there might never be interstellar travel—

Later, after the noon meal—noon according to Tellurian, not Plutonian time—Bruys was standing moodily at his window when he saw Jonesy. He felt a terrific relief. He let loose a sigh, but at the same time, was stiffening himself for the sternness he would have to show Jonesy. The "life expert"

was still a small dot against the blinding white of subliming air-snow, but he was coming swiftly, the sun forging glinting swords of fiery light as rays struck the metal and glass parts of his airsuit. Bravely he ascended a swale, was lost to sight in a trough, struggled across a level space, disappeared behind a piled-up snow dune. As he came nearer, Bruys thought he saw the man's glasses, almost thought he saw the thin, clamped lips. Jonesy disappeared around the Outpost, carrying his specimen-satchel, plumes of carbon dioxide exploding in the thin air around him.

"You sent for me, sir?" Dr. Erwin Jonestone demanded of Bruys fifteen minutes later. "I would have come sooner, but I had to get my specimens into the lab."

"You didn't have breakfast or lunch, Doc?" Bruys said, leaning mildly back in his swivel chair.

Jonesy had a reedy, quick voice. "I can't say I have. It doesn't matter at present. I've got a lot to do, next few hours. Cream of wheat and soft-boiled eggs without salt don't appeal to me anyway. If we can get our business over, I'll appreciate it."

He slid into a chair, then drew himself to the edge, knees close together, his intense eyes impatiently on Bruys. He brushed back his awry hair with a nervous gesture.

"Well," Bruys said hurriedly, "I don't want to interfere with your work." He found himself imitating Jonesy's quick voice and manner, as if all eternity didn't lie ahead. "You went out just before sunrise this morning, Doc. Why? I've told you and the other men repeatedly never to do that. Unless you had permission, and unless you went in twos. If you hadn't come back in another few hours, we'd have been forced to disrupt the work here and send out a rescue party."

Jonesy smiled and relaxed a little. There was something almost sly about that smile. He crossed his legs. "I'd be sorry about that," he admitted, "but at the same time, I don't think the men're that much interested in their work to really care about it being disrupted."

Bruys smiled back, more than a little angry, more than a little baffled. "That wouldn't excuse your action, even if it were true. Was it necessary for you to leave like that?"

"Necessary!" Jonesy laughed outright. "Is human progress necessary? Is society itself necessary? Then that's exactly how necessary my work is. Commander Bruys, I don't think you even understand" —he was intense again, on the edge of the chair—"how important my work is. I've worked three years at it, three years without a stop. And I'm ready to work another ten years if I can succeed."

Bruys stroked his olive skin around his chin, to hide the puzzled set of his lips. "You'd work that long—just to discover life on Pluto?"

"And longer!"

"Don't you think life would have

showed itself by this time if there were any?"

"Microscopic life? Life that just got started maybe, and is therefore so isolated, so localized that it would take several lifetimes to comb a planet and find it? No, Bruys, no. There isn't any formula for finding life. I still think the men who tried to find life on Mars and Venus sat around and waited for petal-snouted men with barrel chests and four arms to come up and offer to trade gold mines and islands for tobacco and fire water. That was what all the literature was about in the Scientific Era just after the Century of the Common Man got off to a good start on Earth. Remember what they taught in school? A few decades after World War II, when Fascism was completely done for — for awhile anyway, because it's starting up again now—there wasn't anything for men to think about except their own betterment. After they got themselves all set up proper, they were bound to think in terms of the other planets. There was a wave of enthusiasm for planetary travel. Only thing is, they were disappointed when they didn't find any life. Well, never mind, sir. I'm simply explaining that I'm old now, I was fifty-five yesterday, and I can afford to ignore conventions and rules and even laws that *you* lay down, because I'm chasing an ideal that I'm willing to spend the rest of my life on, and *me!*" he snorted. "I don't count! If I have to be a bull running through a china shop because I see a cow on the other side—well, then, I'll be that bull!"

He sat back, no humor on his face, but a little breathless. He folded his hands over his slightly bulged stomach, and kept his intense blue eyes on Bruys.

Bruys looked back at him, a frown gathered on the forehead of his fine, handsome face. He had no quarrel with candor, only respect. Truth was, he expected candor from this man, although never in such a big pill-size as he had just taken it. He looked over Jonestone's baggy stained trousers and sweated dirty shirt and made a mental note to have the storekeeper lay out some new clothes for the man.

He said at last, looking at his watch, "I don't want to be keeping you from your work, Doc."

Jonesy bounced up and started for the door, but Bruys stopped him.

"Wait a minute." Jonesy turned. Bruys said, in a conversational manner, "There's a very good chance that we'll close up the Outpost in the next few days, Doc."

Jonesy was a whirlwind, bending over Bruys' desk. His fist smashed down. "That's impossible!" he shouted, the bulges in his prematurely old face turning red. "You've given up. The supply ship will show up." He breathed hard. "Bruys, you can't do this!"

"It's not," said Bruys grimly, "what *I* want to do. It's the Foundation. I'm pretty certain they aren't going to send the supply ship,

no matter what we want to believe."

Jonesy was almost snarling. "If you men leave, I'll be staying here."

"I couldn't permit you to do that. If the Foundation doesn't intend to support twenty or so men, it won't support one man. It isn't the expense of supplies, it's the sheer mountainous fortune that's spent every time a ship of any size, or with any size cargo, makes the run from Earth."

"I know about the expense," Jonesy snarled, still bending over Bruys' desk. "Expense! They've got their nerve to quibble about a minor thing like money, when everything humanity has fought for since there was such a thing as humanity is likely to be dumped down the drain. And besides, it isn't the money. I *know* it isn't the money!" He pointed down with an insistently jerking forefinger, referring to Earth—"They don't know what it is themselves. They don't understand what's happened to them. They—"

He flung back his hair, tossed his head with a sneer, as if even Bruys wouldn't understand. His lips clamped, his eyes turned bitter—eyes which were turned on Bruys, but which, Bruys suspected, were really turned inward on his own thoughts.

"Ah," Jonesy snarled, throwing himself into the chair and chewing at his fingernails, "this is the kind of stuff that makes a man *want* to quit eating!"

Bruys still leaned back in his chair, and the only sound was that made by the pencil he was unconsciously scuffing around on the desk blotter. Though he kept his face calm, there was as much disquietude in his heart as in Jonesy's strange face. He sighed heavily.

"Well, Doc," he said at length, "we haven't come to any definite decision. The decision is with the men. Only—well, I think the men are going to vote to close up."

He was silent again, then added slowly, "I haven't talked this over with anybody but you. Maybe because I realize that you—and I too, I guess, are the only ones who really care about it. But I can't say anything."

"I know that." Jonesy nodded his head up and down once, still chewing savagely at his nails. "Thanks for telling me."

"And," Bruys added, with sudden decision, "I might as well give you advance information on another fact. The Triton Outpost doesn't answer."

"Meaning?" snapped Jonesy.

"Meaning that yesterday they were thinking of closing the Triton Station, and today they did close it. Went back to Earth," said Bruys bitterly, "without a word to us."

Jonesy was on his feet, watching Bruys with an excited, tense expression. *"That* means something!" he shot out. "You don't think their equipment's down? Or something happened?"

"It's very unlikely. I'm convinced they just—left."

Jonesy breathed deeply. He scraped quickly at his chin with

the back of his hairy wrist. "All right," he jerked out, starting abruptly for the door. Then he stopped. "When are you calling for a vote?"

"This evening, after supper," Bruys said. He added plainly, meeting Jonesy's eyes square, "There'll be discussion first."

"Thanks, sir, for telling me. I'm going to *discuss!*" His head bobbed up and down in a birdlike, grim motion and then the sound of the door slamming behind him echoed as if he had left some of his bodily and mental energy in the office.

Bruys relaxed a little. While he was talking with Jonesy, his muscles had been stiffened, his nerves at high pitch. He continued to play with the yellow pencil, his eyes on it thoughtfully It was not his policy to provide important information to one man without at the same time providing it to others. And yet, in this case—well, maybe Jonesy was more deserving of it than anybody else. Because maybe he could do something with it. Maybe.

In his heart, Bruys hoped so.

Billions of miles from the sun, Pluto moved along its slow, lonesome orbit, as if reluctant to approach the doom of its high eminence in the Solar System. In another hundred years, the elliptical nature of its path would carry it closer to the sun than Neptune, and for many centuries it would be not the ninth planet, but the eighth. Yet, for longer than a human thought could think, this seesawing of individuality had been going on, and would continue to go on. No human hand could stay it. Not all the scurrying and mighty bustle of humanity's swarms, taking place in a very small instant of time, could alter the irresistible flow of motion which patterned the universe. The stars cared not a whit for humanity. It remained to be seen whether humanity cared about the stars.

Pluto turned, slowly, and with it turned the Pluto Outpost, latitude 0°, longitude 70° 41′ East—squarely on the equatorial belt. It had turned thus, through winters, springs, summers, autumns, that came daily, for ten years. It would be there for many decades more, but the chances were that man would not.

In the radio shack under Bruys' office, Sparks put his long skinny legs on the radio board and scowled at a magazine. Now and then he looked at the winking light on the switchboard. There was an automatic signal flashing to the dead Triton Outpost. He scowled at it, and kicked the winking light shut. Triton was not going to answer. And now and then, he looked through the open door at the closed door of Dr. Erwin Jonestone's laboratory. The door opened and Jonesy came out, his self-centered face a study in idiocy. Sparks scowled at him. Jonesy closed the door carefully, tried the knob to make sure it was locked, then trotted up the stairs. Sparks made faces at the closed door, and asked himself why Jonesy thought anybody gave a care what *he* did in

there that was such a secret. Yet Sparks looked at the closed door and wondered. Sparks had nobody to talk to. Triton was the last link. Earth and everything else was too far away for man-made instruments of hearing to bridge.

Jonesy came back down the stairs, hugging a vial of watery liquid to his chicken breast. He went back into his laboratory. The door clicked. Arthur Dessen came down the stairs a few minutes later.

"Hi, Sparks," he smiled broadly across the hall. He was breathing a little heavily, from the short climb down. His hands clasped his stomach as if he were trying to push his waistline back to normal. He hesitated at the closed door to the geographer's workroom with his hand raised to knock, then changed his mind and wandered into the radio shack, his mild eyes wandering around the room.

"No supply ship, eh?" he questioned vaguely.

"Nope," said Sparks, lighting a cigarette, and then reluctantly offering Dessen one, because he knew Dessen would take it.

They both blew out smoke. "What's Triton say?" Dessen asked.

"Hah!" Sparks snorted glumly. "They don't say. They had the phone taken out—or sumpin'. Guess they went back home." He opened his mouth with a startled gesture: "Don't tell anybody I told you."

Dessen looked startled, too. "So they've closed up," he said mildly. "That's good sense."

"Yeah, I guess it is," Sparks said anxiously. "But don't tell anybody I told you. I was supposed to keep that mum."

"That's good sense. Guess we'll all be voting to go back home tonight, eh?"

Sparks made a savage, uninhibited gesture at his switchboard. "We're cut off from everything!" he snapped. "Nobody gives a care about us. You're right I'll be voting to go back home!"

Dessen smiled engagingly, nodding his big head. "Well," he said, ambling toward the door, "I've got to drop in on Prizetti."

"Don't tell anybody about Triton," Sparks called after him uneasily. But apparently Dessen didn't hear him, or didn't want to hear him, for he didn't answer. He stopped in front of Prizetti the geographer's door and knocked and Sparks heard Prizetti say "Come on in." The door closed behind Dessen.

Sparks bounced to his feet and threw his cigarette forcefully into a corner, his rusty, pointed face wrathful. He stepped up to the geographer's door and listened to Dessen's muffled voice.

"Looks like the southern hemisphere." He was apparently looking over Prizetti's shoulder at a map he was drawing.

Prizetti laughed. "No, it isn't. A Mercator, centered on the south pole. You can't do much identification with a Mercator of Pluto, though, without even an ocean bed to show separated land masses.

That's what I was telling Jonesy last week, incidentally. Life starts in the oceans. And there never were any oceans on Pluto. He keeps on looking though."

They both laughed. "Well," said Dessen, "I guess we'll all be voting to close up the place."

"Huh?" Prizetti sounded astonished. "Not me. I've still got some mapping to do."

"A dead planet like this?" Dessen was incredulous. Then he lowered his voice, and Sparks almost strained himself through the door in his effort to hear.

All he heard was Prizetti's answer, a shocked answer. "Triton, you mean? *Triton?*"

"Shh! Promised Sparks I would not tell anybody."

Prizetti was swearing. "—left us holding the bag! Well, if everybody's going to walk out on us—"

"They're walking out," Dessen interrupted, grimly. "Well, I have to go see Stevens, up in the skyrooms. Draw pretty maps," he finished with heavy humor.

Sparks dashed for the radio shack and was sitting down as Dessen came out and started up the stairs. Sparks watched the man with fuming, impotent eyes until he disappeared around the first landing. His lips muttered unprintable words. There went a politician, gathering votes.

Commander Arnold Bruys touched at his firm, full lips with his napkin as much to hide his own inner turmoil as to indicate to himself he had finished supper. Supper had a quality that breakfast didn't have. At breakfast the men had been moody. Now they were simply nervous, fidgety, on edge. There was little or no conversation. The men acted as if they had secret thoughts they weren't sharing with anybody else. Quite definite thoughts.

Jonesy was the exception. He ate his soup, soft eggs and mush, quickly, as they were placed before him. Between the courses of his diet, his quick, birdlike glance swept over the other men, studying them each in turn, challengingly.

Once, during the meal, he met Bruys' glance, and nodded a little grimly. It was as if, Bruys thought strangely to himself, the rest of the men were gathered together in a conspiracy; and he and Jonesy were allied against them. Far down in a corner of his brain, Bruys knew why that so far silent opposition made him feel ill. He could not have put it into words. In this room, shortly, a decision was to be made that was not merely the small matter of closing up an Outpost, but of shutting the door on something that was vastly more important.

Everybody was finished, flicking cigarette and cigar ashes into coffee cups.

Bruys kept his seat. He wondered why everybody turned his head toward him, when he hadn't given any sign he was going to speak.

He said, "I promised you men this morning we'd make a definite decision this evening about the Out-

post—what we're going to do. You all know the supply ship is two months overdue, that we couldn't hold out here more than a month if the ship didn't show up soon. Even then we'd have to ration food. Well, the ship hasn't shown up, and—an additional bit of information for your enjoyment"—he smiled slightly—"it looks like the Triton people have closed up shop. We can't get them on the radio."

He frowned. That should have been a bombshell. It drew no reaction. Bruys' eyes turned serious. He searched down the line until he found Sparks. Sparks' face was red and sweating with misery. Bruys drew a deep, annoyed breath, and he looked at Sparks with murder.

Sparks' chair scraped back. "Listen, gang!" he said hoarsely. "I'm leading this vote off. We'll be yella bellies if we back out before we have to. I vote we stay here!"

Nobody expected that, nor expected his own reaction to it. Everybody was on his feet, shouting at Bruys. Everybody except Jonesy. Bruys saw men with contorted angry faces making gestures and shouting at the top of their voices. Dessen finally understood the confusion that was going on, and started shouting the others down. They quieted abruptly, sat down. Dessen said, looking at Bruys,

"That settled it. They all voted we leave the Outpost."

Bruys said coldly, "I didn't know

you were the chairman."

Dessen shouted angrily, "We all voted to leave the Outpost!"

Bruys sat forward, pounded the flat of his hand on the table. "You're out of order, professor," he said sternly. "Please sit down. I didn't call for a vote."

Dessen sat down, breathing heavily. "You didn't call for a vote, but you already know how we feel about it, so why wait for useless formalities?"

Bruys stared him down, his olive face darkening.

"We don't *all* feel that way about it," he said at length, in a more casual tone. He had not wanted to give his own opinion, but he felt forced to it. "It may be that some of us will want to stay as long as we possibly can, on the off-chance that the ship will show up. I propose a discussion of the subject before we fly off the handle. Does anybody want to speak in favor of staying at this point?"

Everybody looked at Sparks, but Sparks sat with his miserable eyes fastened on his empty coffee cup. Then their glances switched to Jonesy. But Jonesy was looking at his coffee cup too, his fleshy lips a little pouted and grim.

Bruys' heart sank. "Well, then, does *anybody* want to speak. I don't intend to ask for a vote unless I have a general summation of the reasons for leaving."

The men looked at Dessen. Dessen nodded with a grunt. "I can speak for the rest of the men, commander, and I don't know as there's much to say. I think we all realize now the Foundation isn't going to support us any longer. We can't possibly support ourselves. So at most, we could hold out here another three weeks, on short rations. We'd have to leave then, so we might as well leave now. And I'd say we aren't leaving anything behind, except the Outpost, which any sane person would value. Pluto is dead—a useless hunk of rock out in a no-man's region of space—"

"I disagree with everything the professor says," Jonesy suddenly interrupted, sweeping aside his coffee cup with a clatter, and leaning forward on his elbows, staring across at Dessen. "May I edge a word in, commander?"

Bruys' strong hand closed around his napkin, then relaxed. "Well?" He looked questioningly at Dessen. Dessen made a scornful motion of assent and lit a cigarette with an attitude of disinterest.

Jonesy cleared his throat, his Adam's apple making visible motions on his loose-skinned neck. "I disagree with the professor's main thesis. I believe Pluto is valuable, and I believe there is life here."

Dessen blew smoke out. He said sarcastically, "Where have we all heard that story before?"

Jonesy snapped with just as much sarcasm, "That's the first time I ever heard Professor Dessen admit he wasn't alive."

Several men burst into loud guffaws. Bruys grinned a little. Dessen's face reddened. He made a baleful sound in his throat and started to push back his chair, but

friends on either side pulled him down again. Dessen glared at Jonesy.

"If the doctor cares for a demonstration, I can prove how alive I am," he snapped. "The question of life on Pluto refers to self-sustaining life."

"Please, gentlemen," ordered Bruys. Neither Jonesy nor Dessen cared much for each other. Bruys remembered the argument about the manicure scissors — an argument Jonesy had settled nicely. Jonesy claimed he had to keep his fingernails sterile for laboratory reasons. His manicure scissors had been missing for a day or so. He had caught Dessen one day using a pair, and Dessen had insisted on his ownership. Jonesy had insisted otherwise. In the presence of unwilling witnesses, Jonesy had put the manicure scissors blades and his own fingertips under the microscope, conclusively proving that the relationship of scissors to fingernails is the same as that of a rifle to a fired rifle bullet. The microscopic marks on the scissors blades matched with the microscropic marks on Jonesy's fingernails. Dessen's withdrawal to defeat had not been gracious.

Bruys said hurriedly to Jonesy, "Perhaps your remark about life on Pluto referred to self-sustaining life, doctor? You've never handed me any sort of report on your work as yet, you know."

"My remark *did* refer to self-sustaining life. But I'm not ready to make a report on my discoveries. I haven't . . . ah . . . assembled all the data. Yet, if I'm given another three months on Pluto, I think the final report of my discoveries should"—Jonesy licked his lips nervously, glancing around at the men—"well, should make everybody more than glad that he stayed."

Several of the men shifted in their seats, as if what he said made them restless, irritated. Covenger, the thin, backward man who drew some of his courage from his superior, Dessen, voiced the general feeling. "The storekeeper's report shows that we couldn't stay another three months, Jonesy. What about that?"

"What about that?" Jonesy barked the repeated question. He bounced to his feet. "I'm going to stand up, gentlemen. I'm not a public speaker, I'm dry and rusty with creeping age, but I'm going to have to speak at length. I'm no psychologist either, but you're going to find me poking around in your minds. What Dessen said"—he pointed a finger at Dessen, without recrimination, but for emphasis—"about leaving Pluto, is symptomatic of an ailment all of you have and everybody on Earth has. Professor Dessen, I am not trying to provoke an argument when I state that you did not speak your mind—not what you really thought. I happen to know you have your own private reasons for wanting to close up the Outpost—today, if possible—"

Bruys turned his eyes just enough to enable him to see the slow flush on Dessen's face that he tried to cover with a cloud of cigarette smoke. He frowned.

"—but there are other reasons why you and everybody else—maybe a few exceptions—want to get out, while the getting's good. The point is, gentleman, that *it's hell to be a hero!*"

Jonesy fumbled with his shirt front, his intense blue eyes burning. "The question we are discussing does not at present deal with whether or not there is life on Pluto, although nobody — *nobody* — knows how important that phase of our subject is. What we are really discussing is why we should stay on Pluto. Rather, as I am on the defensive, why we shouldn't leave Pluto. That question is intimately bound up with Triton, and the fact that the people on Triton left for Earth, without telling us. Why haven't any of you brought that subject up, gentlemen? Why do you propose not to discuss that significant fact? Because you all know, right down to the bottom layer of your minds, that the Outposts on Triton and Pluto were the last Planetary Outposts in the whole Solar System! And *it's hell to be a hero!*"

The men sat perfectly still, as Jonesy's grating voice fell away. At last Dessen spoke, as if with an effort.

"I'm not so sure all the other Outposts are closed up."

Bruys felt as if something cold and hard were knotted in his stomach. He looked down the line and saw Sparks' doleful face looking at him. Bruys nodded imperceptibly. Sparks sat forward, sighed.

"Let me say something a minute, gang." His voice was weary, unhappy. "Jonesy's got it right. Just the other day the Triton keyman told me everybody on the Saturn moons closed up house and scooted for home. And a few weeks before that, the Saturn operator on Encelephadus told him that the Jovian Outposts got the kayo. Figure it out. We know there's nobody no Mars or Venus or Mercury. They were given up years ago. It never was general information. It never got any headlines in the papers. I don't know why. But everybody's back on Earth or on the way. Everybody except us. The Foundation threw 'em all over, if you want to dig for the facts. Nobody else was ever interested enough to finance the Outposts again. So I guess we're the spare in the bowling alley."

Dessen spoke so quickly it sounded as if Sparks' voice hadn't left off. "And all the more reason why we shouldn't stay here," he shot out. "Why, good heavens, man" — he was addressing his agitated words to Jonesy—"what *use* is there in staying here. They've already decided the planets aren't fit for colonization, that they never harbored a living thing. Even if you should discover life here, what good would it do? Whom would it benefit? The Foundation still wouldn't—"

"Wouldn't they?" Jonesy interrupted coldly. "I happen to think they would. Pluto isn't the last

Outpost, gentlemen—it's the first frontier. To the stars— But I don't intend to be led away from my subject!"

He took an accusing stance. His words flowed rapidly, staccato-fashion. "I'm not going to point out to you men that most of you should have a desire to stay here as long as you can. The desires of scientists to extend certain branches of human knowledge. You, Cawthorne—you haven't completed your charts of the planetary wind system. The solar men haven't evolved an accurate system of clocking time according to Pluto's orbit and rate of rotation. Prizetti isn't anywhere finished mapping Pluto. There is a very definite volcano near the south pole that Dr. Maynard hasn't yet had an opportunity to study—a volcano which is supplying enough carbon dioxide to the planet to make agriculture barely possible at some remote date. No, I'm not going to point that out—not at any length. Because I think that the fumes of an anaesthetic which have doped the billions of people on Earth has seeped up here to Pluto. But luckily, I'm little and cranky, and I don't breathe very deep, and I guess I see things *you* don't!

"For instance, Sparks mentions there weren't any headlines when the Outposts closed up. Naturally. It wasn't the kind of stuff people like to read. They feel guilty about turning their backs on the planets. They don't like to see their guilt spread on front pages. The Triton people used that same kind of reasoning. Their ship was only a month overdue, but ours was two months. They were afraid we'd decide to close up before they did. If *they* got back to Earth before *we* did, the blame wouldn't be on their shoulders for deserting an ideal. For sending humanity back along the trail of another dark ages. Maybe they didn't think it out that far. Maybe they didn't—except they went and didn't tell us they were going. They didn't want to be the heroes—they wanted *us* to be. It's O.K. to be a hero—until you find out there isn't any glamour in it. Too much responsibility."

The "life expert's" glance passed briefly over Bruys, went down the line of men. Bruys was sitting forward, watching Jonesy with a degree of puzzlement. Jonesy had them in some sort of a noose, Bruys thought, to judge by the grim slyness around his puckered mouth. And the men were listening, captured in spite of themselves, yet with a certain uncomfortable foreboding.

Jonesy continued, spacing the words deliberately, weightily. "Maybe you men haven't thought it out either, that far. But you've thought it out. You don't like the idea of being the Last Outpost. It's too heroic. You know the Triton people were nearer to Earth than we were. But you also know we have a newer, faster ship than theirs. Think that over. We wouldn't have to be the Last Outpost. Not as far as the history books are concerned anyway. See? You gentlemen know that if we leave now—*we can get to Earth before they can!*"

Bruys felt like throwing up his hands and sinking straight through the floor of the Outpost. In his least diplomatic moments—and he managed to be a diplomat, had to—he never would have planned a humiliation of that sort. That it was a humiliation was apparent. The table rocked as men leaped to their feet in angered protest, shouting and gesticulating. Even after most of it stopped, Professor George Stanley's thundering, "Commander Bruys, I demand that Dr. Jonestone be made to retract that statement!" echoed in Bruys' ears like a nightmare. The reason the men stopped their protests and suddenly, horrifiedly sat down, was because they saw, too late, what noose it was Jonesy had thrown around their collective necks.

"Well!" said Jonesy, with acid delight. "Well! The patient reacted according to expectations! Check and double check. I can also expect that my other surmises are correct."

The few men who still remained standing sought their seats and lapsed into a grim, murderous silence. Dessen, who had also forgotten himself, looked disgusted. Some of the men lighted cigars or cigarettes and tried to cover their confusion. Some muttered darkly to each other. Bruys controlled a strong desire to laugh.

"Doctor," he managed sternly, "your remark was uncalled for."

"I apologize," said Jonesy instantly, his eyes dancing.

"Doctor," Dessen said, making a flat, angry motion with his hand, "you might just as well continue in the same line you left off. I don't demand an apology. You're set on our remaining on Pluto. Apparently, you've decided to shame us into it. But"—Dessen accented each spaced word with a heavy, exasperated gesture of one hand—"*why* should we stay? To give you time to discover life here?"

Jonesy hesitated, frowning at Dessen. He said primly, "I will admit that is my principal reason."

"It's important to discover life here?"

"Believe me, there's nothing more important, because—"

"At present, doctor," said Dessen patronizingly, "spare us your highly subtle explanations. They might check. And," he persisted, "you need two or three months—more time than we have supplies for?"

"Yes."

Dessen sat back, letting his hands fall to his sides as if the whole point of the argument had escaped him and he'd much prefer to go to bed and sleep it off. Bruys hurriedly slid into the breech. He leaned forward, getting Jonesy's attention.

"Doctor. I see you've something else on your mind. You believe we can hold out two or three months more. How? What d'you propose?"

"This!" Jonesy sat down, leaned forward on his elbows. His voice went down like a conspirator who knows he has argued a group of loyalists into the idea of civil war. "Follow through with my assump-

tions! Let's go to Triton. We've got just enough reserve fuel for that trip. The Triton people want us to stay out here on Pluto as long as we can. They hold the shame and conscience of all humanity in their hearts. The longer we continue to be . . . ah . . . heroic, the more remote will their own guilt be. The longer we *hold Pluto,* the less they'll feel their own shame and weakness. So they've made provisions. My guess is that they left all the food, extra clothing, tools, supplies of all kind that they could spare, knowing that we might come to investigate. Check?" Nobody said anything. For the most part they listened glumly. Bruys guessed they were busy hating Jonesy's innards. "Check!" said Jonesy. "So I propose we go to Triton. I move, gentlemen, that if we don't find enough supplies on Triton to justify our returning here and staying a reasonable length of time, that then, and only then, shall we decide to go back to Earth. I'm willing to give that motion over to Commander Bruys for a vote."

Jonesy sat back, breathing a little heavily, fumbling one hand comb-fashion through his brush-wood hair.

Bruys looked over the men, and thought he had never seen a more spiritless bunch. He said, "Has everyone heard Dr. Jonestone's motion? All in favor say 'aye'."

Sparks, appeasing the bad conscience his loose tongue had given him, said "Aye," loudly. Several other men grunted.

"Any against?" Bruys' brow arched upward questioningly. Nobody said anything. "Motion carried," said Bruys with finality. "Meeting adjourned. Later this evening, I'll appoint seven or eight men to take the ship down to Triton. In the meantime, I'll take on anybody who thinks he can beat me at a game of Ping-pong."

There was a round of laughter as chairs scraped back. Bruys swung the meanest paddle in the crowd.

On the "morning" of the next "day"—(it was then a little past Pluto's noon hour)—three of the ten jets of the Outpost's spaceship huffed and puffed mightily, splattered ricocheting sparks of fire and fumes against the insulated fire-stop. The ship poised on the runway. The navigator added another jet, and another. The ship started moving along the runway, and up. By the time it shot at accelerating speed from the barrel of the spaceship hangar, and into the atmosphere, eight jets were working. It broke from Pluto's atmosphere under ten jets. An hour later, its course set on a parabolic curve that was utilizing the sun's gravitation to its utmost, the ship was traveling under the full propulsive force of ten jets with all stops moved over to the checks.

Bruys was commanding the expedition to Triton. With him were six other men. Nillsen, whose purpose on Pluto was to set up an accurate time-keeping system, had the training, though not the license, of a navigator. Some of the skymen

knew enough about the motors to service them. Jonesy had come along on his own insistence—partly, Bruys guessed wryly, to experience his share of satisfaction if his surmises concerning Triton proved accurate.

Bruys, no pushover for a tall tale, was beginning to believe that Dr. Erwin Jonestone was taking them all for some kind of a ride. It was damaging to his ego to discover suddenly that important events were taking place behind his back. This feeling was given fuller body when the ship landed on Neptune's lone moon six days later.

Jonesy's observations concerning Triton appeared to be dismayingly correct. The Triton people had left the combination to the lock of the big lock pinned to the door. Bruys already had a notation of that combination, but the Triton people had made doubly sure. They wanted the investigators from Pluto to get in and find the supplies they had left. For, of course, there were supplies, of all kinds.

It's hell to be a hero, Bruys was thinking dismally as they walked through the deserted place, and then, as by a common thought, went down to the storerooms again. In the next hour, Bruys directed the loading, and worked up a fine sweat carrying cases of canned goods himself. He suddenly noticed that Jonesy hadn't been around for fifteen or twenty minutes. Fine stuff, Bruys thought. He was irritated.

He found Jonesy in the biological laboratory. The door was closed,

To look well-groomed, shave in a flash,
Enjoy more comfort, save cold cash,
Use Thin Gillettes and win her smiles—
For low-priced blades, they're tops by miles!
Made of easy-flexing steel hard enough to cut glass
Gillette
BLADES
4 for 10c
Produced By The Maker Of The Famous Gillette Blue Blade

but not locked, and when Bruys opened it, it made a clicking sound. Jonesy whirled around, his mouth falling open. He almost lost his hold on a jar he was holding. He fumbled for it with a wild motion, and stuffed it hurriedly into a grip. He closed the grip, and his lips puckered in an uncertain smile.

"Why so startled, Doc?" Bruys queried mildly, but his gray eyes were hard.

"Startled?" Jonesy laughed weakly, his eyes shifting. "I wasn't— That is, when I heard the door clicking, I hadn't expected—" He said with sudden petulance, "I'm gathering some . . . ah . . . special supplies. That's all. I'm finished now."

He went past Bruys, lugging the heavy, locked suitcase and disappeared toward the tunnel leading to the hangar. Bruys looked after him with the uncomfortable feeling that somehow he was being made a fool. Bruys had never intended to head the investigation party. Nor had he intended to bring Jonesy along. His original plans had included Professor Arthur Dessen as the head of the expedition. Jonesy had changed the plans.

Jonesy had gone volcanic when he heard that he wasn't being included. "But I *have* to go! There are certain supplies I need. Important things. Some slides, some stains, some of the ten-by-six and ten-by-four tubes. And . . . uh . . . certain other equipment."

"Can't you make a list?"

Why Jonesy couldn't make a list for someone else to fill was something Bruys hadn't been able to grasp the explanation for. Jonesy spluttered and stammered. Bruys explained that he thought it more important for Jonesy to stay on Pluto, continue his work. Besides, he refused to send Jonesy on the same expedition with Dessen. It would be a two-week trip to and from Triton.

But Bruys had never been hard to get along with. He kept his mind as flexible as his body, and that evening Jonesy sounded as if he were on the brink of panic. One would think that his whole argument about Triton had been staged for the sole purpose of giving him an opportunity to accompany the expedition.

"I can get along with Dessen if he keeps his mouth shut!" Jonesy snapped.

"And if he doesn't—or *you* don't —I'll have a boatload of nervous wrecks to take care of when they get back. The possible bad effects of the trip through space are enough without a cat-and-dog fight to make it worse."

Bruys had leaned back in his swivel chair, shaking his pencil at Jonesy. "Doc, with me nothing is hard and fast. It so happens that I don't understand your work, and I haven't the slightest idea what stage your work has reached. In fact, I don't know why the process of discovering life on a planet should go through stages. But I've got a funny idea that your work is important, and you know what you're doing. I'll change the plans. You can go. And, come to think of

it. I believe I'll go. Dessen might be sore about that, but I'll leave him in charge of the Outpost. Fair enough?"

Jonesy had sat down, his shoulders falling, his expression one of defeat. He managed in a strangled tone, "I *want* Dessen to go! I don't trust Dessen!"

"I just changed the plans," Bruys reminded him.

Jonesy had left, recognizing finality. And now, standing in the door of the biological laboratory, looking after Jonesy's retreating form, Bruys remembered overhearing Jonesy asking the storekeeper for a padlock and angle iron a few hours before they left Pluto. The storekeeper didn't have a padlock and angle iron, and Bruys guessed that Jonesy's request would be common knowledge before the ship was many hours out. A psychological blunder on the part of a man who apparently had some knowledge of the human mind.

Bruys spent a few thoughtful minutes wandering around the laboratory, looking at the shelves, trying to guess what items Jonesy had taken. Since there wasn't any dust to speak of in the Outpost, he didn't find any clues. He went back to the storerooms, finally, puzzled, but with his full, pleasant lips set with a certain determination. Somewhere along the line, Jonesy was pulling a fast one. And somewhere along the line, Bruys would kindly, but firmly, choke the truth out of the "life expert's" scrawny throat.

The loading was finished in a few hours. The ship left Triton, and strictly on schedule, showed up over Pluto in the middle of the daily "winter." The navigator shrugged the ship into the landing cradle, with a few single-jet bursts got it onto the round-table. Some of the Outpost's men were out in spacesuits. They turned the round-table by hand, and then let the ship slide tail-first down into the hangar.

Bruys greeted everybody with his smiling patter as he shucked off his coveralls. Nobody was particularly surprised that they had found supplies on Triton. Few of them were happy about it. Yet a lot of the men made sportive, congratulatory remarks to Jonesy, in spite of their feelings. Most of them had wanted to go home. It struck Bruys that Dessen was acting entirely out of character, though. His easy, ambling smiles were missing. He stood aloof from the general wave of greetings that was going on, and his glance was resting on Jonesy with a strange, intense thoughtfulness.

Bruys saw him approach Jonesy. "Good work, doctor," Dessen said. That was the first time he smiled, yet beneath the smile was a terrific anxiety. "We can hold out now, after all."

Jonesy was busy getting into different clothes, near his locker. He looked at Dessen without friendliness. He said something Bruys didn't catch. Then Jonesy scooped up his suitcase of supplies, and started with his peculiar fast bump-

ing gait toward his laboratory. There was a grimness around his mouth.

Dessen looked around, wetting his lips, then hurriedly set his own body into motion after Jonesy.

"Oh-oh," thought Bruys. He dressed as quickly as he could, but one of the solar men corraled him with a mass of evidence concerning a possible dark body not more than a billion miles out. The man was so excited about this that he didn't notice that Bruys had something else on his mind.

"Well," said Bruys hurriedly, "we couldn't posibly make the trip out to check up. Fuel. Just enough to make it back to Earth."

"But we *have* to get out there somehow! Look at this—definite cosmic-ray umbra effect, commander. If there weren't—"

"Well," Bruys interrupted him, clapping him on the shoulder and starting off, "bring your charts into my office later this evening."

Bruys got to the stairs leading into the basement, and went quietly. He froze as he heard the "life expert's" voice. The volume on Jonesy's voice was tuned down, but it came out as a tinny cry of rage. He was swearing. He was cussing Dessen out.

"Now wait a minute, doctor," Dessen said thickly. "I didn't have to tell you. You don't exactly understand the position I'm placing myself in."

"You didn't have to tell me!" Jonesy mimicked. "I don't understand the position you're placing yourself in! Don't you think I've got any brains? The minute I step into my laboratory I can tell somebody's been in there. It wouldn't take half a minute to figure out it was you who broke in."

"I was intending," said Dessen, obviously controlling his temper, "to tell you I'd broken in whether you confronted me with any evidence or not. I doubt if I left any evidence. I want you to know I didn't tamper with anything. I want you to know —well, that you have my sincere admiration as a scientist." It sounded as if he used a handcrank to grind out the words.

"What good does your admiration do?" Jonesy almost shrieked. "You've ruined everything. I knew this would happen. I *knew* it. Now nothing's safe any more. All my work is for nothing—"

"Your work isn't for nothing. Not if I have to cut out my tongue. Your work will be revealed to the world when you reveal it."

Jonesy made a sobbing, defeated sound. "You're a fool, Dessen. You don't have the remotest idea about my plans. My work will remain a secret long after I'm dead. Unless you— Well," he finished wearily, "let's don't stand out here."

Below, there was the sound of Jonesy's laboratory door clicking shut. Bruys swore. He wished he were keeping a personal diary. He would write something in it about the vagaries of Fate sealing strange bonds.

Sparks came bouncing down the stairs just about then, and Bruys barely missed colliding with him. He went back up to his office,

burned up because it was apparent that Jonesy had discovered life on Pluto, and was engaged in a secret little game of his own—and Dessen's, too, now—using the men here at the Outpost for pawns. He had moved everybody around on the board with extreme finesse, even Bruys—

Bruys scowled at his desk blotter. But then the phrase came into his mind again. Life on Pluto. There was a quickening of his pulse. He whirled around in his chair. He zipped the panel away from his window, and the full immensity of black space rushed in on him. The sky was absolutely alive with stars, absolutely, amazingly, swimming with them! Millions! It was as if Bruys had never seen those stars. He recognized this as the most exciting moment of his life. He savored it, pressing to the window. He was standing on the outermost rind of the Solar System. Professor George Stanley had spoken with him just a few moments ago, telling him about a dark body only a billion miles out. He had sloughed Stanley off, telling him they had just enough fuel to get back to Earth. What a stupid, idiotic remark! He should have told him they had just enough fuel to get to the possible dark body.

Of course, that elation soon passed away from Bruys. He sat down, and took up the yellow pencil into which he poured most of his nerves. He bounced it up and down. What if the conversation between Dessen and Jonesy had referred to something else?

Definite proof that the dark body, of medium planetary size, existed, gave the skymen a month of excitement, and complete forgetfulness of their desires to go home. The grounders were interested too, but not much. They nursed their resentment against Jonesy, and they were astounded when Dessen sprang to Jonesy's defense. Sparks, who was going crazy because his radio was completely silent, wandered moodily around the Outpost, and admitted to Bruys that since he couldn't eavesdrop on the ether, he eavesdropped on closed doors.

Dessen had held several heated arguments with the men about Jonesy. Everybody considered Dessen's statements as treason.

"You know something about this nobody else knows," he was accused. "At the meeting when Jonesy fooled us into staying, you wanted to get back to Earth twice as bad as anybody else."

"Well," said Dessen, "I'll tell you something about that. You remember Jonesy accused me of having a personal reason for wanting to get back to Earth? I did have a personal reason. If we'd have left Pluto at that time, we'd be a week or so out from Earth right now. And my birthday is the middle of this month. I figured I could celebrate it with my wife and kids."

Dessen shouted with laughter. The rest of the men joined in sourly. "I guess Jonesy isn't as much of a fool as some of us think he is, eh?" Dessen demanded. "I've been thinking maybe we'd better give him a chance. Can't

tell what he's liable to come up with. Personally I'm ready to go on short rations if we have to."

It was noticeable, too, that Dessen's interest in his work picked up. He left the Outpost in all kinds of weather, making long trips for samples. Or ostensibly he was pursuing his geological activities, for after awhile it became apparent that several of Jonesy's expeditions coincided in time with several of Dessen's.

After the first month, the skymen suddenly sat back and talked about the dark body with disinterest. They had gathered a number of facts about it, but they were sure they'd never get a chance to explore it physically. They continued their work with lessening impetus. But Bruys, like a bemused spectator from outside watching the strange flow and ebb of emotion which washed in shifting ripples across this family of men, saw Dessen wading in and bucking the tide of opinion. He was a force to be reckoned with, for when, in the third month after the expedition to Triton, it was apparent that everybody would have to go on strict rationing, it was Dessen who talked the men into it. He had, of course, laid the groundwork previously.

Jonesy was the enigma. He talked with no one. He shunned, and was shunned. At the end of the fourth month, Bruys for the first time tried to have a showdown with Jonesy. The "life expert" dropped into a chair in Bruys' office. He was tired and thinning and graying. Bruys forced himself to overlook that and demanded a report. Bruys was thinner, too.

"I know," he said conversationally, "that you've got something up your sleeve that you aren't letting anybody in on, Doc. But I don't mind letting you know that I intend to find out what it is."

Jonesy's weary eyes faltered. "I can't let anybody in on it," he muttered.

"Except Dessen."

Jonesy stiffened. "So you know that. That's too bad." His fingers ran nervously along the arm of the chair, then his glance rested hard and firm on Bruys. "Bruys, I'll tell you the main direction my work has been taking. I don't think there's any vegetation on Pluto. That means that if there's animal life, it has to feed off of hard rock itself. But I . . . ah . . . I've discovered in my various specimens traces of animal excrement. Just traces. The microscope shows it. It may be centuries old and may mean actual life, somewhere near here. I've been following up a path of animal excrement, hoping to come on the actual animal itself. Lately, I've come across traces of excrement that are recent." He came to the edge of the chair. "That's the essence of my report. I'm convinced there's life on Pluto. I'd like to go now."

"You can go whenever you want to, but I think you're a liar."

Jonesy rose savagely. "I don't mind your calling me a liar, Bruys! I'm outspoken myself. But I do resent having unforeseen factors introduced into my experiment!

You're an unforeseen factor, and Dessen's an unforeseen factor! Dessen has helped a little. So have you. But now you're meddling. The more you meddle, the more chance there is of my whole plan going wrong. This is an experiment in which humanity is a constant—until humanity gets on the wrong side of the equation!"

He stood over Bruys, his strange puckered face quivering.

"All very pretty," said Bruys, coldly. "You may as well know, however, that I have no personal power over the men. They're restless and they aren't getting enough to eat. They're going to demand another meeting soon, and no matter what you and Dessen say, it won't do any good. You can go now."

Jonesy rushed with long, infuriated steps to the door and slammed it behind him.

Bruys called the turn. After supper one evening, Stanley, the same man who had discovered the dark body, informed Bruys that there would now be a vote—and discussion, too, if anybody wanted it. Bruys opened the meeting, calling for discussion, and Dessen got heavily to his feet. Dessen spoke at length. The men sprawled in their chairs, and it was apparent to Bruys they were hardly listening. Dessen sat down uncomfortably. Bruys looked at Jonesy. Jonesy rose, looked over the men, and his expression turned grim. "Never mind," he said harshly. He sat down again. He knew what Dessen hadn't—that the men had already made up their minds.

Stanley then moved the Outpost be closed up, and the ship start back to Earth as soon as the sun rose. That would be in two "days." The motion was carried by a three-quarter majority.

All work of an observational nature was abandoned. Final reports were drawn up. Personal effects were gathered together. An atmosphere of relief pervaded the Outpost. Food rationing was taken away. The ship was loaded, its motors and driving equipment checked. In the few hours before the sun rose, nobody slept, and conversation ran thick and fast. Even Bruys felt as if a terrific load had been taken off his shoulders. It would be good to see Earth again. Men bustled around him, smiling and catcalling, forgetting that their species was abandoning the last hold on the planets, forgetting everything but what they wanted to remember. And forgetting Jonesy.

When the sun rose, there was no Jonesy.

A dead silence grew among the men.

Jonesy's laboratory door was swinging wide. There was nothing mysterious about the laboratory, except that all the equipment was clean, shiny, as if Jonesy had recently been working on it.

"Doc!"

Men went through the Outpost hurriedly. Finally they confronted Dessen.

Dessen laughed reassuringly. "That's right. Come to think of it, he told me he was going to take one

little trip outside. He'll probably be in any minute."

"And if he isn't," someone said harshly, "we're going on without him."

Most of the others murmured agreement.

Bruys said nothing. He saw the contagion of gloom that at once spread among the men. He felt it himself. Men wandered around the Outpost dispiritedly, once in awhile looking from windows to see if the "life expert" were coming in. Now they had an opportunity to think, for the first time since they had decided to leave. Mental bulwarks they had built against the desertion of the Outpost came crumbling down. It had been hell to be a hero, but maybe they hadn't been heroic enough—not enough so they could look back on the moment of leaving for the rest of their lives and know in their hearts that they had been right.

Hours passed. No Jonesy. The cook threw some sandwiches and coffee together. The sun rose higher. Dessen got in his airsuit, and was seen outside investigating Jonesy's footprints which led across the bumpy plain on which the Outpost was built. The wind and the heat were slowly dissipating those footprints. Dessen came in again and said nothing.

Nobody dared to mention leaving Jonesy here again, as the hours passed; even though they were quite aware that he had tricked them into staying beyond the scheduled time of departure. There were two more meals, and another period of sleep. At breakfast, Bruys said matter-of-factly, "We'll have to go and get him."

The party of eighteen men which went after Jonesy comprised almost all of the inhabitants of the Outpost. Bruys assumed it to be a nervous reaction from inactivity. Five men only stayed behind. They were definitely blasphemous about rescuing Jonesy from any trouble he might have got into. He had been gone almost thirty-six hours.

Everybody in the party wore airsuits. Though the heat of the sun had released enough atmosphere to carry a man's voice for several yards, there was little talk. Dessen and Bruys led the way, with Nillsen behind. Nillsen was carrying a sextant, claiming he could shoot the stars and find the way back to the Outpost. However, Bruys had several of the men carrying flags, and these they planted at two-mile intervals.

The sun seemed to cling stubbornly to one spot in the sky, though it was close to Pluto's noon. Airsnow swirled in eddies around the men's feet. Now and then they had to make their way around snow dunes. White mountains, though far away, cut definite angles into the black sky.

After several hours, most of the party wanted to rest, but Bruys pointed out that the footprints they were following were becoming too difficult to distinguish. The men swore and grimly plodded along.

There was only one footprint left for every ten or fifteen, Bruys

guessed. It was enough to keep them moving. While they had been walking, Bruys' mind seemed to have been set in motion to a running pace. The sharp, pitiless contrasts of black and white, the stark grandeur of this planet so far from Earth, keened his thoughts until the whole enigmatic picture of Dr. Erwin Jonestone struggling against something that no man in his right mind would have fought came before him clearly. He moved closer to Dessen's trudging form, caught his attention.

"You've been out this way with Jonesy, Dessen?" he demanded outright.

Dessen's heavy jaw fell, then closed with a bulging of muscles. "Why should I—" he began. However, Bruys' expression was so intent that he reddened. He averted his face and for several seconds walked along without saying anything. "O.K., I have," he bit out.

"How far yet?"

"A half hour maybe." His voice was low, nervous. He made an angry gesture with his head. "Commander, I guess everybody knows I've been on friendly terms with Jonesy these last months. It's not that I like him more. It's that I respect him for having done something—" He stopped.

"He's discovered life on Pluto?"

Dessen walked along again without saying anything. "Yes," he ground out. "He's discovered life on Pluto."

They found Jonesy. He was apparently oblivious to everything. He was squatting at the entrance to a cave with his back to them, looking at something in the cave.

"Jonesy!" Dessen yelled. He started running toward him. The rest of the men followed his lead.

Jonesy looked around, his weary face holding a benign smile.

"Jonesy!" thundered Professor George Stanley. "Where do you think you've been!"

The men crowded around the mouth of the cave, some of them shooting questions, but all moved by a sudden chilling curiosity.

"Look in there," said Jonesy, gesturing loosely. "Life."

"Look at that!" Sparks yelled suddenly, as if stabbed. "Life!"

Several of the men in back shoved forward through the crowd. Those in the forefront stood stupidly, letting themselves be shoved around, fastening their eyes on the creatures moving around on the floor and walls of the cave. And now everybody was quiet, as if, unbelievably, they had stumbled into the home of the gods.

"I finally tracked it down," said Jonesy, his voice very soft. "Mark this moment well, gentlemen. You are looking upon the first life ever discovered on any planet other than Earth. More books concerning this scene will be written than there are men here. More men will walk past this spot than ever left Earth in all the decades before this. This is the life of Pluto that I have found."

The life that lived in the cave was like nothing any of them had seen before. In this respect it was repellant—or would have been un-

der ordinary conditions. The creatures ranged in size from one to five inches. They were hard-shelled, and from the shell stuck numberless bladed glasslike shards, on the tip of which a tiny beadlike particle glistened—like an eye. The shards always pointed in the direction in which the creatures moved. Underneath the shell, however, one could barely see the pulse of pink flesh and blood. The creatures moved leisurely on the floors and walls of the cave, and behind them left a deeply indented track. They were apparently eating the rock. But the inflating and deflating tubes which trailed behind them, turning alternately red and white, were undoubtedly absorbing oxygen.

Bruys watched the hundreds of creatures, and then turned his attention to the men. He wondered if they felt the way he did that moment when he had become convinced that there was life indigenous to Pluto. In that moment it had seemed that a clogged door in his mind had opened.

One of the solar men said shakily, "Well, this certainly changes things. It looks as if life isn't confined to Earth after all."

"Wait till the Foundation hears about this," Stanley said. "If there's life on Pluto—on a planet like this—there might be life on Mars too, or Venus. Or"—his voice shook and rose—"or yes, on that dark body we discovered! The possibilities are endless. Life on a dark, cold, impossible planet like Pluto! Can you imagine it? Can you imagine our conceit, thinking Earth holds the only life? Why, this isn't even the only solar system. There're the stars. There might even be *intelligent* life out there!"

Some of the other men spoke now, on the same lines. Excitement rose. Jonesy looked on, his eyes glistening. He said nothing more. After an hour of that, Bruys rounded up the crowd of gesticulating, furiously talking men and started them back toward the Outpost.

Dessen and Jonesy walked ahead, the men crowding around, shooting questions. Bruys could barely hear Jonesy explaining in some detail why it had taken him so long to track life to the cave.

Now and then some of the more introspective scientists turned their heads to look at the sky. Whether or not they were skymen, Bruys thought, it might well be that they were seeing the stars—really seeing them—for the first time in many years. And it was on the reaction of these men—certainly a fairly accurate reflection of the reaction of humanity at large—that Bruys laid his course of action concerning Jonesy's discovery of life on Pluto.

When they got back to the Outpost, Bruys immediately called Dessen and Jonesy into his office. Bruys bounced his yellow pencil up and down, fastening his glance on Jonesy.

Bruys said, "Doc, I suppose we three hold between us the greatest secret of all time. The key to the greatest hoax that ever will be per-

petrated against mankind."

Jonesy came to the edge of the chair, nostrils dilating. "What d'you mean?" he almost snarled. But fright was deep in his eyes.

Dessen kept his face impassive, but his eyes were averted from Jonesy, as if he could offer no support to Jonesy's determination to play the game out to the last.

"I mean," Bruys said quietly, "that one does not keep his laboratory locked, a secret, while he is trying to find life indigenous to a planet. Nor does he refuse to submit reports on the progress of an honest research."

"So my research wasn't honest?"

"Your research was honest in itself. But your statement concerning the purpose of your research was not honest. It was a fraud, a cheat. On Triton, I think I realized that for the first time. I don't know what supplies you were gathering there. But they were supplies—something like powdered protoplasm, maybe—which could hardly be connected with the search for indigenous life. But you've been preparing a hoax."

Jonesy's every muscle was tense, his eyes, glittering. "So?" he almost hissed, as if ready to murder.

"You've discovered life on Pluto. Only 'discovered' isn't a good word. *You've created life.*"

Jonesy seemed to shrink. He slid deep into the chair, in an attitude of utter dejection.

"So now three of us know," he muttered. "I knew it wouldn't work." Then he looked up, fiercely again.

"Bruys," his reedy, quick voice snapped out, "it *can* work. You and Dessen have to keep your mouths shut! It's important that nobody knows what I've done."

Bruys smiled. "That nobody knows you've created life? That you've solved the greatest riddle any scientist could face?"

Dessen entered the conversation, shifting his big body around so he could move his eyes from Bruys to Jonesy. "Never mind that, commander. I told him the same thing. I told him how much direct good it could do humanity. But he wants it this way."

"The amount of direct good it could do humanity," Jonesy said with scorn, "is a drop in the bucket

compared to the long-range returns. Besides, I've used the discoveries of other scientists who almost created life themselves, but not quite. It just happened that I had to jump the hurdle. In a decade, two decades, maybe less, somebody will create life again. I'm perfectly willing to forego the credit, if you'll only—" He bit his lip, voice falling away.

Bruys said nothing, his face a study. Silence fell, save for the heightening whine of released atmosphere.

Dessen said after awhile, "It burns me up, too, commander. But after seeing the way the men acted, I've come to think he's right. This is the way it has to be."

Bruys said plainly, "Doc, I've already decided to keep my mouth shut. In my clumsy way, I've managed to insinuate my way into the conspiracy. I've meddled. Like Dessen, I'm . . . uh . . . on the wrong side of the equation, but as far as keeping this *sub rosa,* I'm a constant. The . . . discovery of life on Pluto was like a shot in the arm to the rest of the men."

"You saw it, too!" Jonesy said eagerly. "A hypodermic! That's what it was. Well, wait till everybody on Earth finds out that there's life on Pluto! It wasn't the Foundation that closed up the Outposts, nor any selfish business interests that did it, either. Oh, no. Those were just the outward symptoms of a neurotic mankind drawing itself back into its own little dark corner of the universe.

"Life *had* to be discovered on Pluto. Humanity was stupefied by a psychological shock—a shock that might have sent them backward a few thousand years. Before planetary travel came about, everybody knew there was life on the planets. Some of them expected Martian princesses. Others expected some pretty strange monstrosities. But they expected *something.* They drew a blank. Frustration. They lost interest in the planets when they didn't find what they expected. And science, Bruys, points up at the stars, not down into mud."

A conscious pride transformed Jonesy's face. "I think that what I've done, discovered life native to Pluto"—he smiled slyly at Dessen and Bruys—"is as good as creating life any day. Humanity is going to be looking up this way again."

Bruys felt that way, too. He felt rested and alive and curious. When people started looking up toward Pluto, they couldn't help from seeing the stars. Some day they'd try to find life on the stars. Maybe they'd succeed. It was even probable that out of all those stars, they'd find intelligent life. If life could evolve on an inhospitable planet like Pluto, *why not?* Bruys smiled; and then started, as if the clogged door in his mind had been opened wider.

If intelligent life could evolve on Earth—*why not?*

THE END.

Halt!

"Stop And Be Recognized"

On the top of the preceding page is an action photograph, but one that a sports-action photographer would scorn. The fact of action is not shown at all in the picture. The ballistics expert who snapped this little portrait was decidedly not scornful—it's a lulu. The subject—who did anything but sit for this portrait—is a 6-pounder anti-tank shot, caliber approximately 2¼ inches. It was traveling about half a mile a second at the time, some eighty feet from the muzzle of the gun. It was taken by the Armament Research and Development Establishment Department of National Defense of Canada, G. M. Cooke, photographer. At the bottom of the page is a photograph of the gadget that made it possible—a General Radio Microflash set-up. The type of camera used isn't particularly important, so long as it has a well-corrected, long-focus lens; the determining factor in the exposure was the lighting.

The Microflash, like the Edgerton high-speed photography equipment, an Eastman's Kodatron, and the still-earlier spark-photography system, depends on a simple principle. A bank of large, high-voltage, high-capacity condensers is charged to a potential of several thousand volts, then the stored energy is released *very* suddenly through a gas-arc tube—usually an argon-mercury type tube. The result is, quite literally, an explosion of electronic energy, converted into light—rather as a chemical explosion's energy is converted into sound. The violent intensity of the light, during its infinitesimal instant of existence, is appalling—and effective. The half-mile-a-second shell is stopped dead. Rotating tens of thousands of revolutions a minute, due to the rifling, it still seems stationary. The rifling pattern is clearly visible on the copper driving band, and streaks mark the rest of the shell where gas that blew by the hard-driven fit between copper driving band and rifle barrel scored the hard metal of the shell.

Shots of bullets in flight are old; they've been doing it with simple sparks between electrodes for years. But, if you remember, those were always silhouette views—black shell against white background. It really takes light to get an adequate exposure, showing fine gradation of tones, on something moving that fast!

THE EDITOR.

The Secret Giant

by WILLY LEY

***It's rather** hard for us to realize that any creature much larger than a mouse can live on this planet without our knowledge. But that's because it's impossible for us to realize how vast the blank and empty-seeming seas are. There, things greater than elephants can live, unknown.*

The words which should go at the head of any article dealing with that famous sea monster, the Kraken, were provided a little over two hundred years ago. In 1753, when Erik Pontoppidan, Bishop of Bergen, wrote the second volume of his big and beautiful "Natural History of Norway" he began the discussion of the Kraken with the sentence: "Among all the foreign writers, both ancient and modern, which I have had opportunity to consult on this subject, not one of them seems to know much of this creature, or at least to have a just idea of it—"

It would surprise the good bishop if he could learn that even now, two centuries later, he is still largely right.

We still know very little about the "Kraken," the gigantic relative or relatives of the small and medium-sized well-known squids, calamaries and cuttlefish. And the story of that truly awful monster of the sea

One of the best reports of the kraken came from the French corvette. Alecton, *in November, 1861. Artist's drawing based on the account.*

is still mostly one that is founded on uncertainty, put together by way of hearsay, designed by the imagination and embroidered and polished by literary splendor.

Still and all, the story somehow holds together, mostly because there *are* some facts. They are scattered and many of them are insufficiently documented, but they are *facts*. And while a twenty-foot piece of foot-thick tentacle, vomited in death struggle by a dying whale, cannot very well replace the whole giant octopus that went with that piece of tentacle, it at least proves that there *is* a giant octopus of such size.

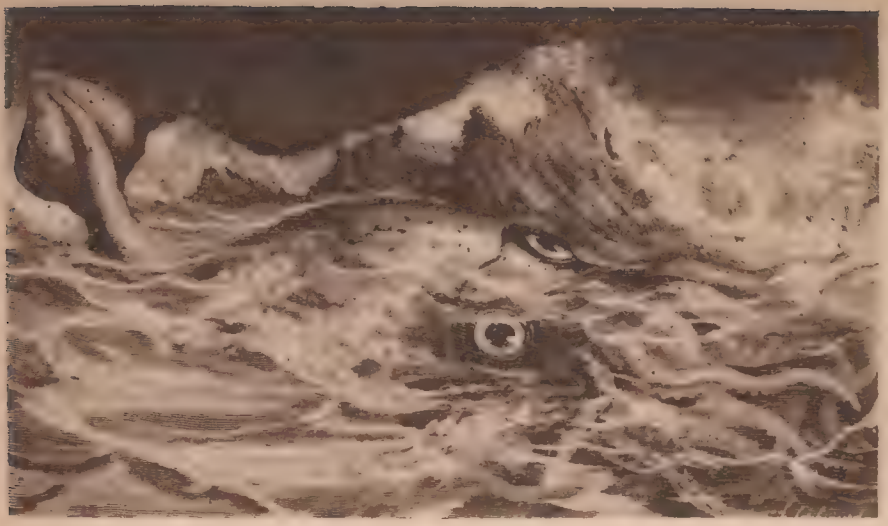
To myself, and to most anybody I have ever met, east and west of the Atlantic Ocean, the giant octopus is a literary acquaintance from early childhood, encountered for the first time in the exciting pages of Jules Verne's "Twenty Thousand Leagues Under the Sea." It is in the latter part of the novel that the submarine *Nautilus* is suddenly attacked by giant octopi. One man is carried off and the tentacles reach down into the boat for more prey. But by chopping off the tentacles with an ax the crew of the mysterious Captain Nemo saves itself and the boat.

Being of the impressionable age of ten at that time and being eager to learn more about these unusual creatures, I went to the supreme authority of boys of that age: I asked my teacher. Little did I know then that grade-school teachers hardly know the things they are supposed to teach and that they hardly ever feel the urge to acquire any information not required of *them* by their superiors.

I did not get the information I expected. Instead I was informed that I was too young to read Jules Verne to begin with, that it was not nice of me to read books by a Frenchman and how was my collection of cherry and plum pits coming —this was in Winter, 1916, and schoolchildren were ordered to collect all such pits they could find, for machine oil—and that that whole novel was, of course, only Gallic imagination. There were no such things as giant cuttlefish—and I often had the feeling later on that he would have denied the existence and possibility of submarines, too, if the German press had not just embarked on a big publicity campaign for the German submarine fleet.

Years later I came across the giant octopus again, this time in Victor Hugo. (I was still reading books written by Frenchmen.) By that time I already knew that one can look things up in libraries; the only trouble was that the library at my disposal was poor and small. It did not contain any of the few books in which the theme is discussed at any length—as I know now because they are fairly scarce and all written in French or English. But the library did contain a few zoology books and a German counterpart of the *Encyclopedia Britannica*.

The zoology books were silent on the subject of the Kraken, as more than ninety percent of *all* zoology books are, but the encyclopedia did contain a short paragraph, stating that "there is evidence for the exist-



A British artist's painting of a giant calamary, from eye-witness reports.

ence of very large octopi even though they do not attain the fabulous proportions ascribed to them by old authors like Olaus Magnus and Erik Pontoppidan."

That was of little help to somebody who did not even know the names of Olaus Magnus and Erik Pontoppidan, much less their writings.

It took a lot of omnivorous reading to produce even a clear mental image of the sequence of the story of the Kraken. It seemed that a Swedish archbishop, Olaus the Great, or Olaus Magnus, had been the first to mention the Kraken during the early part of the sixteenth century. He did so in a book on the history of the Northern nations —later it turned out that this history, while highly imaginative, was not too reliable.

Olaus had also spoken about other sea monsters "off the coast of Norway" and had an artist picture them. There were whales squirting fountains of water into frail ships, other whales with a whole mouth full of elephant's tusks, chewing up similar ships with evident enjoyment, big fish of some kind eating a fisherman's net full of fish and the fisherman along with it. The pictures were such that the Swiss naturalist Konrad Gesner von Zürich, when he wrote his gigantic folios on natural history around the middle of the sixteenth century had reprinted Olaus' pictures, but without description and a general heading stating: "Such monsters were put on plates by Olaus, how well and right is his responsibility to bear."

Olaus, on the whole, did not sound like a very reliable witness.

Just to make things more pleasant Olaus himself was confused by

many writers with his brother Johannes; they were both of the same age, being only two years apart, and they were both archbishops.

A little more than a century later the Kraken found its next historian in the Norwegian bishop Erik Pontoppidan. Again half a century later the scene of action shifted to France where Dénys de Montfort devoted the greater part of his book on mollusks to the Kraken—with hand-tinted illustrations. That was in 1802.

In spite of de Montford's fluent French rhetoric and in spite of the brightly colored illustrations — or maybe because of them—all books became unanimous in asserting that "there ain't no such animal." From about 1810 to, say, 1860 nobody believed a word of all this and any mention was purely derogatory.

Then, u n f o r t u n a t e l y, the "Kraken" began to appear in person.

Huge carcasses, some of them still semialive, were washed up in several places like Scotland and Denmark and a little later the waters around Newfoundland were found to be infested with them. (We now know that the waters around northern Australia and the Philippines are also full of them.)

A Danish naturalist, Japetus Steenstrup, began to collect some of the evidence that had come to light and published it. Unfortunately Steenstrup, otherwise a man of merit, had just pulled one or two enormous boners that had to do with the question of whether the woolly mammoth and Man had once been contemporaries. For a while Mr. Steenstrup's opinions were not apt to be very impressive.

But then the Newfoundland cases proved him right after all, and zoological science now admits the existence of gigantic octopi, even though the theme is still treated in a curiously diffident manner in most zoology books. The so-called "manuals" usually fail to list the gigantic varieties after listing the well-known types. Lydekker's enormous "Library of Natural History"—I have the edition of 1904—does not devote a single paragraph on any of its three thousand five hundred fifty-six large-size pages to Kraken. The even more enormous German "*Tierleben*," originally writen by one Dr. Alfred Brehm and now a compendium of fourteen volumes, encyclopedia size, has just *one page* about it.

Of course there is a certain reason for this.

The strict zoological information on hand still consists mainly of the fact that giant octopi exist. Body weights of a ton or more, tentacles of a length greatly surpassing twenty feet, staring eyes ten inches in diameter, coloration ranging from dark-green to bright brick-red—these are the facts on record.

Places where such creatures have been found or observed are: the North Sea, especially its northern parts, both along the Scandinavian and the Scottish coasts, the Atlantic Ocean west of the Strait of Gibraltar, the Atlantic Ocean around Newfoundland, the Caribbean Sea,

the Pacific Ocean around the Philippines and NE Australia and the Antarctic Sea.

It is fairly well established that there are several varieties of them. There is little doubt about their food: anything alive provided that it is not vegetable in nature.

But the two things for which we really want to know the answers still remain question marks. One of them is: what are these giant varieties? Are they special varieties of which we know nothing except those chance specimen or pieces of chance specimen? Or are they simply incredibly old individuals of known varieties? There is some reason to believe that at least some varieties of octopi grow as long as they live. Most individuals, of course, find a violent end before they get very old. Some fish *like* octopus. Whales, especially the toothed varieties, seem to hunt especially for octopi, their hunting seems to be beyond mere liking, octopi appear to be their favorite subsistence. Then, of course, larger octopi eat smaller octopi, it has been observed often enough in aquariums.

Are the giants just individuals that managed to escape all mishap for centuries? Do we have their "young" in our museums without knowing it?

The other unanswered question is: where do the giants usually live? In the South Seas they are often encountered emerging from the cracks of coral reefs, in water shallow enough to be accessible to human pearl and sponge divers. It seems likely that submarine caves, in water of two hundred fathoms or less, are their favorite haunts. The sudden abundance of giant octopi around Newfoundland has been explained, for example, by saying that something happened to their submarine caves in about 1870. Tectonic events may have forced them to the surface into the open sea for a number of years at that time. Or it may have been just a shifting of currents of the sea, which made the old haunts uncomfortable.

Or are these animals encountered near the shore all chance specimen? Are they essentially animals of the high seas, living an unsettled life at a depth of one hundred fathoms or thereabouts? The facts that they are unlikely to encounter a sufficient amount of large prey at greater depths and also that they are so successfully hunted by whales—mammals which have to come to the surface for air—speak against the oft-advanced hypothesis that they normally live at the bottom of the sea.

This is the outline of the story.

Now for some detail.

When I came to New York ten years ago, having an entirely new large library at my disposal, I decided to go in for some literary research, and the Kraken was one of the subjects on the list. The New York Public Library, I have been told, has a little over two million volumes. The Prussian State Library in Berlin, to which I was used, has close to three million.

The interesting point is that the two libraries overlap to such a slight

Jules Verne described a battle between Captain Nemo's crew and a giant octopus, shortly after, and probably inspired by, the Alecton *incident.*

extent that it is surprising. Especially as regards older books you can almost count on finding in the one what is lacking in the other.

The first thing I looked for and found was Olaus Magnus, an English edition—the original is in Latin—printed in London in 1656 and entitled: A Compendious History of the Goths, Svvedes & Vandals, and Other Northern Nations: Written by Olaus Magnus, Archbishop of Upsall, and Metropolitan of Svveden.

It is Chapter V of the twenty-first book, where the Kraken appears:

"There are monstrous fish on the Coasts or Sea of Norway, of unusual Names, though they are reputed a kind of Whales, who shew their cruelty at first sight and make men afraid to see them; and if men look long at them, they will fright and amaze them. Their Forms are horrible, their Heads square, all set with prickles, and they have sharp and long horns round about, like a Tree rooted up by the Roots: They are ten or twelve Cubits long, very black, and with huge eyes: the compass whereof is above eight or ten cubits: the Apple of the Eye is of one Cubit, and is red and fiery colored, which in the dark night appears to Fisher-men afar off under Waters, as a burning fire, having heirs like Goose-Feathers, thick and long, like a Beard hanging down; the rest of the body, for the greatness of the head, which is square, is very small, not being above fourteen or fifteen Cubits long; one of these Sea Monsters will drown easily many great ships provided with many strong Mariners."

The description is not at all bad, with its emphasis on the large size of the head compared with the size of the body, the gigantic eyes, the tentacles looking like the roots of a tree—there can be no doubt that Olaus, even if he had never seen a giant octopus himself, had eyewitness accounts to go by. And, if his remarks mean anything at all, that he had accounts from eyewitnesses who had been badly frightened.

So this was history's first account of the giant cuttlefish.

I looked for the second, Pontoppidan's and found that too, an English edition of his "Natural History of Norway," published in London in 1755 in a very big, well printed, perfectly bound and neatly illustrated folio volume of some ten pounds. The Norwegian original had been written in 1751, the second volume in 1753.

Well, Bishop Pontoppidan did put it on somewhat thick. His Kraken lies in water of eighty or one hundred fathoms offshore, but sometimes the fishermen find only twenty fathoms. When they do they know that they will have an overabundant catch, but they also watch the depth, because it means that the Kraken is rising to the surface. Sometimes it does not actually come up, but when it does, it looks at first like a number of small islands. Finally the whole back appears "about an English mile and a half in circumference—some say more but I choose the least for greater certainty."

These are fishermen's stories, as admitted by the bishop. But there is one little paragraph, tacked on like an afterthought, which looks as if it were a report of an actual event:

"In the year 1680 a *Krake*—perhaps a young and careless one—came into the water that runs between the rocks and cliffs in the parish of Alstahong. . . . It happened that its extended long arms caught hold of some trees standing near the water, which might easily have been torn up by the roots; but besides this, as it was found afterwards, he entangled himself in some openings or clefts in the rock, and therein stuck so fast, and hung so uncomfortably, that he could not work himself out, but perished and putrefied on the spot."

Having finished with Pontoppidan, I sat on one of the stone benches in front of the Public Library and wondered. Something was not quite right with all this. It was not the obvious exaggerations of Pontoppidan's fishermen's tales. It was modern commentary. Why did they all say, probably copying from each other, that Olaus and Pontoppidan were the earliest two sources for the giant squid? I seemed to remember something much older.

Roman?

Gajus Plinius Secundus, commonly known as Pliny the Elder?

Yes, of course, chapter forty-eight of the ninth book, where the old cavalry colonel told the story of the "polypus" of Carteia, a place in Spain, just outside of the entrance to the Mediterranean. "It was only with the greatest difficulty that it could be dispatched with the aid of a considerable number of three-pronged fishspears. The head of the animal was shown to Lucullus, it was as large in size as a cask holding fifteen amphorae of wine"—a considerable cask, since an amphora was about nine gallons.

The tentacles of that octopus, amusingly called "beard," were so thick that a man could not reach around them with both arms and were thirty feet long. Some remains were preserved for some time, they weighed seven hundred pounds.

I don't know why Olaus, who wrote in Latin himself and certainly had access to a copy of Pliny, failed to mention him in order to do both, prove his erudition and bolster his own case. I know even less why later writers kept harping that Olaus and Pontoppidan were the first to mention the giant octopi.

But even Pliny did not satisfy me. He was a much older source all right, but Pliny was not what I had vaguely in mind. There was still another one—after Pliny, or contemporary, or older than Pliny?

It was the thought of "still older" which proved fruitful. After all, there were not too many—there was Strabo, then Herodotus and Hesiod the probable contemporary of Homer and, of course, Homer's "Odyssey," the story of Odysseus' encounter with Scylla.

The description given in the epic itself is clear enough: . . . but her form is a sight portentous that no one E'er would gladly behold, not even a god if he met her Round her a dozen of feet she is always waving suspended Six long sinuous necks outstretching before her and each one Beareth a head terrific with teeth in a threefold order Many and thickly arrayed, where gapes death's cavernous blackness. Up to the midmost parts she is hid in the depth of the cavern Whilst from her lair in the fearful abyss six heads she ectendeth Hunting for fish at the foot of

Before careful reports were available, the kraken was a sailorman's yarn. This drawing, based on such, was deliberately imaginative.

the rock and peering around it, Dolphins to catch or dogfish, or haply another and greater Beast . . .

(XII, 87 and following)

It contains all the now familiar elements, the cavern in which the monster waits, the nervous play of the tentacles, some of which are invisible as a rule, the generally terrifying appearance which would dismay "even a god if he met her." The "teeth in threefold order" are probably the sucking disks of the tentacles and that their total number is wrong—twelve instead of the possible maximum of ten—proves nothing against the story itself.

Here we have an old, a very old account of an encounter with a giant squid, written at the latest in about 650 B.C. probably a century or even two earlier.

Homer, not Olaus, had introduced the giant octopus into literature.

Later it occurred to me that Scylla is not the only mythological monster which can be traced back to the frightening appearance of the Kraken. There is another one: *Medusa.*

She, too, appears for the first time on the "Odyssey," mentioned as a monster of the underworld — the "Mythological Lexicon" contains an explanatory note saying that the Gorgo's head lived in the realm of the dead, the Far West, which then meant the coast of the Atlantic Ocean and Spain.

Hesiod then knows three gorgons: Stheno—the mighty; Euryale—the far-springer; and Medusa — the queen. They were the daughters of the sea god Phorkys and of

Keto. Medusa especially was very beautiful and finally attracted the attention of Poseidon. During their liaison they defiled one of the temples of Athene and Pallas Athene, armed and armored as always, and eternally on tense terms with Poseidon, changed Medusa into a monster of extreme ugliness, with writhing snakes for hair. Then King Polydectes—needled by Athene—sent Perseus to slay Medusa. Whether Athene had caused Perseus' punitive expedition or not, she gladly aided him and gave him the advice which saved Perseus from the petrifying stare of Medusa. The two sisters tried to kill Perseus in turn, but their pursuit was ineffectual.

Before we go on it must be mentioned that the classic picturizations of Medusa acquired the shape of a coldly beautiful woman with snakes for hair rather late. The early picturizations are different. They show the head only—it was used to fill round spaces, like shields, coins and later even doorknobs—but it is a face which has little resemblance to a human face. It is round with large eyes and a cleft tongue protruding from the open mouth. Instead of snakes there are only scroll lines, which may be taken for hair, or for snakes, or merely for space-filling lines.

When one examines the story it becomes clear that it is a sea story. Medusa is the daughter of one sea god and the beloved of another one. She dwells in the Far West, in or at least near the ocean. Perseus' trip is a sea voyage, he kills Medusa at the seashore. Her sisters who are immortal—i. e. who were not killed by Perseus—pursue him ineffectually, since he is on land and under the protection of the—land—goddess Athene.

Medusa, in short, was a sea monster, of a type which looks as if it were only head, with staring terrifying eyes, with writhing "snakes" surrounding her face.

I said earlier that nobody around the middle of the nineteenth century believed in the existence of large octopi or squids any more. The Kraken had been finally "unmasked" as a product of the imagination of Nordic fishermen, of a time, be it noted, when heart- and body-warming rum had already been introduced along the Scandinavian coast line with outstanding success. This opinion was still firmly grounded in 1860.

In 1861, a few weeks before Christmas, the French corvette *Alecton* made port with a very unusual report. The *Alecton* had been about one hundred twenty miles NE of Tenerife on November 30th, in a calm sea and with a clear sky, the air being unusually warm, when the lookout man sang out that there was "a large body, partly submerged, drifting at the surface."

The commander of the corvette ordered approach and investigation thinking that it might be a half-submerged wreck. It turned out to be a gigantic squid. The bright brick-red body was about eighteen feet long, the tentacles another eighteen feet or more. The eyes,

which were coal-black and had a cold glassy stare, measured ten to twelve inches across.

Since the *Alecton* was a war vessel there was no lack of armament. Solid cannon balls were shot at—and through—the animal which, though lazily drifting, was unmistakably alive. Harpoons were thrown at it. Ship and Kraken were immediately alongside—which made the estimate of the measurements so accurate—there was no way of missing. But apparently there was also no way of hurting the creature, the cannon balls penetrated without causing much of a reaction, the harpoons did not hold in the flabby flesh.

The monster did not even seem greatly disturbed by the furious attack. The giant squid disappeared under the surface three or four times, but always reappeared after intervals never exceeding five minutes. After several hours of intensive naval action one of the cannon balls hit a vital spot, the monster vomited large quantities of messy mucus and half-digested food, producing an intense and oppressive stench, even more oppressive because of the heat of the day.

At about that time one of the men succeeded in throwing a noosed rope around the squid. It slithered along the body but caught at the big fins at the rear end. The men, in an incredible display of bravery, tried to haul the still-living monster aboard, but the flesh was so soft and the weight so great that the rope severed the tail end of the Kraken. That part was salvaged, the main part disappeared under the surface for good. But even the salvaged section quickly became so high" that it had to be thrown overboard —the *Alecton* had no other proof than the word of her commander and the affidavits of her whole crew when she made port.

The case was put down as a case of mass hallucination!

Captain Bouyer's reply is, unfortunately, not on record.

The encounter of the *Alecton*—which prompted the famous Kraken scene in Jules Verne's story of Captain Nemo and the *Nautilus*—had been preceded by all the cases which Dénys de Montford had collected, among them one in which a Kraken had actually reached up into the shrouds of a vessel and torn a sailor from his perch. One of the tentacles had been hacked off in the battle, it measured twenty-three feet.

Only a few years before the Alecton case—in 1854—a large specimen had stranded on the Danish coast. The fishermen cut it up for bait, but the nine-inch beak was saved. Some three or four years later a seven-foot calamary stranded in the Shetlands. It was badly mutilated but could still be measured, the eight "short" tentacles were eight feet long, the two long tentacles sixteen feet each.

These were the two cases which made Steenstrup undertake his investigation—but it did need the "Newfoundland series" to clinch the case.

In 1873 three fishermen off the

But this drawing, from de Montfort's "Natural History of Mollusks," wasn't supposed to be imaginative—simply adequately impressive.

Newfoundland coast saw a shapeless mass floating upon the water. Hoping for salvage they rowed up and struck it with their boat hook. At once the shapeless mass opened up into what looked like an umbrella, two green eyes stared at the men and two tentacles gripped the boat. The monster ejected a large amount of black fluid when one of the fishermen severed both tentacles with his hatchet, and disappeared. One of the tentacles was cut up for bait before a Rev. Harvey—the reporter of this case—saw it. The other, lacking six feet used up for bait, still measured nineteen feet, while the fisherman swore that another ten feet had been left on the Kraken.

Soon afterwards another one caught itself in a fish net, the body measured eight feet in length and five feet around, the long arms twenty-four feet, the short arms six feet. The eyes were four inches in diameter. Only a short time later one was taken alive at Coombe's Cove, Fortune Bay, the eight short arms measured six feet on the average, the two long arms forty-two feet, the body ten. A specimen cast ashore in 1877 was brought to the New York Aquarium, it was nine and one-half feet long and seven feet around. The long arms measured thirty feet each, the eyes had a diameter of eight inches.

During the same year a specimen of similar size was washed up at Trinity Bay and was observed struggling desperately and fearfully to escape from the shallow portion into which it had been deposited by the tide. "In its struggles," an eyewitness reported, "it ploughed up a trench thirty feet long and of considerable depth, by means of the stream of water that it ejected with great force from its siphon."

For a few more years giant cuttlefish and calamaries of many types were a fairly frequent event along the Newfoundland coast. Then they became rare again.

Some more and less direct evidence has been furnished by whalers. Toothed whales, vomiting in death struggle, have shown evidence of still larger Kraken, in one case a six-foot piece of tentacle, *with a diameter of two feet*, has been claimed. Another claim goes for marks on the skin of such a whale, looking like the mark of a sucking disk over two feet in diameter.

There is no longer any doubt that cephalopods of truly gigantic size do exist. But the knowledge that they do exist is only the fundamental item on the long list of things which we would like to know about them.

THE END.

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Disappearance

by CHESTER S. GEIER

The little town was noted for only one thing—the way its young people vanished. And if you knew that, and were married to one of them, and she vanished . . .

Illustrated by Williams

He climbed out of the car and waved a farewell to the man behind the wheel. "Good night, Fred. See you at work tomorrow."

Fred grimaced. "Don't remind me, Doug. After all the fun we had on our fishing trip, it's going to be hard to get back to the old routine. Well, good night."

Doug Crandall waved again, and the car pulled away from the curb, purring off into the summer night. Gathering up his fishing tackle and the string of bass, Doug started toward the door of the two-story apartment house in which he lived. Eagerness flowed into him at the thought of how delighted Vickie would be when she saw his catch.

As Doug approached the house,

he glanced up at the windows on the second floor. They were dark. The windows of the first floor apartment, in which the Masons lived, were dark, too. It was just a little after nine—too early for either Vickie or the Masons to have gone to bed. Doug decided most likely Vickie had gone to a movie with the Masons.

Doug found his apartment dark. He switched on the lights and looked into the bedroom. Vickie was not there. He went into the kitchen, thinking she might have left a note. But he did not find one, and he consoled himself with the thought that Vickie had probably expected to be home before him.

He decided to make some coffee while waiting for Vickie to return. Emptying out the glass coffee maker in the sink, he noticed the brown rim that had formed on the inside, near the bottom. Queer—looked as though it hadn't been used for some time.

Something began to stir in a dark, dank corner of Doug's mind as other little discordancies jarred upon him. Looking into the refrigerator for cold cuts with which to make a sandwich, he saw that the interior was very bare. If Vickie had done her Saturday shopping, it would have been filled with things to eat.

Then Doug remembered that the bed had not been made when he had glanced into the bedroom. It wasn't like Vickie, for she kept the apartment almost painfully neat.

Little things—a ring of sediment on the inside of a coffee maker, a refrigerator that had not been stocked, a bed that had not been made. But they assumed a terrible importance to Doug Crandall. And suddenly the old fear was back, whispering in his mind, gnawing at his heart.

Doug began to smoke cigarettes, glancing continuously at his watch. When the coffee was done, he drank it black. And then, unable longer to remain seated, he rose and began to pace the floor.

He kept glancing at his watch. Ten-thirty. Then eleven o'clock. Anxiety mounted within him as the minutes passed.

Once he turned on the television set in the living room, but he was unable to find an interest in any of the programs, and shortly he switched it off. He resumed his nervous pacing.

A little after eleven-thirty, Doug heard a car draw up in the front of the house. That would be the Masons, returning home. Doug listened eagerly. There was the sound of footsteps, the creak of an opening door. Then there was silence.

Doug strained with the intensity of his listening. If Vickie had gone out with the Masons, she would now be coming up the stairs. There would be the sharp sound of her small heels in the hall, the click of her key in the lock. But as the tense seconds passed, they did not come.

At eleven forty-five, Doug was unable to bear longer the silence and the fruitless waiting. He descended

the stairs, knocked on the Masons' door.

Ted Mason opened the door, clutching a bathrobe about him. The sleepiness left his eyes as he became aware of the strained whiteness of Doug's face.

"Why, Doug, you look . . . say, anything wrong? Come on in."

"It's Vickie!" Doug burst out a moment later, as he confronted Ted and Paula Mason in their living room. "She's gone. I . . . I'm afraid something happened to her." The words spilling out erratically, he told of his coming home from the fishing trip and finding the house strangely neglected. "I thought maybe she had gone out with you," he finished.

Paula Mason shook her blond curls. "No, Doug, she didn't. The last time I saw Vickie was yesterday . . . Saturday . . . in the morning. Ted was taking me shopping in the car, and I came up to ask if Vickie wanted to go along. But she wasn't feeling well. She said she'd get some things, later, from one of the neighborhood grocery stores. I came up again, in the afternoon, but there was no answer to my knocks, and I thought Vickie had gone out somewhere."

Doug was staring into space. "Didn't feel well—" he muttered. "She had a headache Friday night, when I left. It didn't seem important, then. But if Vickie had taken sick, why hadn't she stayed home?"

Ted and Paula Mason returned Doug's anxiously questioning gaze helplessly. Some of the alarm which he felt was beginning to show in their faces.

"Maybe Vickie went out to do a little shopping, and maybe she got sick, and—" Ted Mason's hesitant voice broke off, as though he feared to continue.

"That might be it," Doug whispered. "She went out to do some shopping, probably fainted, was taken to a hospital—" Abruptly, he shook his head and sat down in a nearby chair. He looked at something beyond the Masons, beyond the room, still shaking his head. There was an intent blankness in his eyes.

He could not ignore the old fear any longer. Vickie's disappearance was not so easily to be explained. He'd had what he felt certain all along was the answer, but he hadn't wanted to admit it, not even to himself. Now he realized, with a flooding of despair, that he had to face the facts.

Doug spoke slowly, haltingly. "Ted, Paula . . . I'm afraid there's more to this than it would seem. I . . . I'm afraid I'll never see Vickie again." He took a deep breath. "You've heard of the Alderdale disappearances?"

"Why, yes," Ted Mason admitted. "It's still something of a sensation. But, Doug, what on Earth has that got to do with Vickie?"

"Vickie and I are from Alderdale," Doug replied simply. "We left like a great many others, when the disappearances started. Vickie and I had just been married. It had seemed so important that nothing should happen to us. We came

here, to the city, and I got another job."

Doug looked at his nervously twisting hands, and for a moment he did not voice the thoughts that leaped and flickered within his mind, like shadows thrown on a wall by a fitful flame. Alderdale—just a little Illinois town, not much different from all the other little towns scattered the length and breadth of the country. He and Vickie had been born in Alderdale. They had grown up together, gone to the same schools. They had gone to parties together, picnics, dances. It was only natural and logical that they should have married in the end.

Life in Alderdale had been good, flowing gently, easily, like a lazy, little stream. Then, a little over two years ago, the disappearances had started. Girls and young men, just having reached maturity, began to vanish into thin air. They were never heard from again. Investigations of the most exhaustive and authoritative kind had gotten nowhere.

People had begun to leave Alderdale. Doug and Vickie had eventually joined the exodus. Leaving had been hard, but the danger had been real and very near.

Doug looked up from his hands. His ravaged face was bitter. "Leaving Alderdale didn't do any good," he went on. "Whatever happened to all those others, it caught up with us even here."

"But how can you be sure?" Paula Mason demanded protestingly "The disappearances were highly localized—and you're a great distance from Alderdale now. Vickie had a headache. Perhaps it was the first stage of some illness. She might have gone out to do a little shopping, fainted from the effort, and was taken to a hospital."

"The police, Doug," Ted Mason put in with clumsy gentleness. "The police would have been notified in that event. Your name and address would have been found among the contents of Vickie's purse. Maybe the police called here while we all were away."

Doug rose from the chair in abrupt, desperate eagerness. "I'll try them. There might be a chance."

"I'll take you in my car," Ted Mason offered.

"No, Ted. I'd hate to bother you with this any more than I have already."

Ted Mason began pulling his bathrobe off. "I'll be ready in a minute," he said with firm finality.

Ted Mason, when he had dressed, paused only long enough to give Paula a hug that brought a gasp of surprise and pleasure from her lips. It was as though he had suddenly discovered something of great value in a possession hitherto regarded a commonplace. Then he threw an arm in rough masculine sympathy over Doug's shoulder, steered quickly for the door.

The police sergeant was conscienciously thorough. He checked station records, inquired at headquarters for precinct reports, called the county hospital and all the others to which Vickie might have been

taken. But in every case he drew a blank.

"Doesn't look as though your wife had taken sick while out shopping," the sergeant said, his voice gruff with an awkward sympathy at the anxiety in Doug's face. "There must be some other explanation. I'll check on possibilities, and have a look-out order for her issued. In the meantime, you'd better return home and get some rest. I'll call you as soon as anything turns up."

Doug nodded dully, and with Ted Mason a silent figure of commiseration beside him, left the station. He stopped outside, on the sidewalk, his face forlornly resigned.

"I expected that," he told Ted Mason. "Vickie's gone—just as all those others from Alderdale are gone."

Ted Mason said with restrained impatience, "But Pete's sake, Doug, this is the city. Just because Vickie's from Alderdale, it doesn't mean the disappearances caught up with her here."

"Then what other explanation is there?" Doug demanded.

Ted Mason shrugged uncomfortably. "I don't know. But I do know that jumping to conclusions isn't going to help you any."

"I'm not jumping to conclusions," Doug insisted. "I'm right, Ted. I know I'm right. I can feel it all the way down deep inside me."

"You're taking this too hard, Doug." Ted Mason reached out an encircling arm. "Try to get a grip on yourself. Maybe this will come out all right. We'll go back to the house now. A little rest will do you good."

Doug shook his head. Thought of returning to the apartment, so silent and empty now without Vickie, was somewhat revolting.

"But it's late!" Ted Mason pointed out protestingly. "Where else can you go!"

"I'll just walk around a while. I feel like walking. I feel like doing a lot of walking."

"For Pete's sake!" Ted Mason gripped Doug's arms hard. "Stop it! Hear me? Now look—we're going back to the house. A call might come in, and you'd better be there if it does. Suppose someone called while you were out walking?"

It was this that won Doug over. He sighed, nodded wearily, allowed himself to be led to the car.

Back at the apartment, Doug went quickly from room to room, impelled by the wild hope that Vickie might somehow miraculously

have returned. But each room was still as barren of her presence as the last.

He began pacing the floor and smoking cigarettes. It was as though he hoped, by the mere act of walking and smoking, to keep at bay the fear that stalked within him. He kept glancing at the phone in an alcove near the door, holding his breath, then releasing it as he looked away.

Vickie— The thought whispered urgently, pleadingly, in his mind. Vickie—what happened? Vickie—what was it that took you away?

Alderdale, an answering whisper came. Alderdale, where girls and young men just over the borderline of maturity vanished into air. The thing behind those disappearances—the thing which might have reached across the miles between the city and the town, reached and struck, even here.

Doug tried to shut that other whisper out of his mind, but it persisted, became overbearing in its triumph over the futile efforts of his will. It mocked him with its presence, taunted him with dark suggestions, hideous insinuations.

The night wore on. Weariness became a weight in Doug's legs. His throat was raw from smoking. Sheer exhaustion finally pulled him to the sofa. He decided to rest a while. Just a while.

The sofa was soft. It was a cloud bearing him weightlessly through space. The weight spread from his legs, reached his eyelids, pulled them down. The whispering was stilled.

Doug opened his eyes to the dazzle of sunlight. He blinked frowningly, dimly aware that an insistent sound had awakened him. The sound was repeated. Someone was knocking at the door.

It was Paula Mason, bearing a tray laden with dishes. She said almost shyly, "Just thought I'd bring up something to eat." She didn't wait for his reaction, but brushed quickly past him, set the tray down on the kitchen table, and began to bustle about with an energy that clearly would brook no objections.

Doug cleared his throat. "This is swell of you, Paula. Really swell."

"You sit down and eat," Paula Mason said briskly. "Men never talk sense until they're fed."

It wasn't until Doug started on the food that he realized how hungry he was. Then he had to restrain himself from wolfing it down.

"You've made the place a mess," Paula Mason said, her voice still brisk. "Coffee grounds all over the sink, cigarette stubs everywhere." She began to tidy the kitchen, not glancing at him. Her energy seemed boundless.

Doug felt a glow of gratitude. He knew Paula's briskness was merely a pretense made in an effort to put him at ease.

Finally he was finished. He found his cigarettes, lighted one.

Paula Mason finished straightening the apartment, and began to gather up the dishes. The briskness had gone from her. The concern which it had hidden now showed clearly on her face.

"Doug, what are you going to do?" she asked, when the contents of the tray had been replaced.

Doug lifted his hands helplessly. "I wish I knew. It all seems to depend on the police. They said they'd call me up if they learned anything. The city is still pretty much of a puzzle to me, and I don't know where else I can turn."

"Don't you have any friends from Alderdale living here in the city? One of them might know something about Vickie."

"I know of several. But, Paula, I don't think there's any hope in that direction."

"You could find out," Paula insisted.

Doug hesitated in aching indecision. "But if someone should call while I was out—"

"I'll leave the doors open, up here and downstairs, so that I'll be able to hear the phone or the doorbell if they should ring. Don't worry about that, Doug."

He decided to act on the possibility, futile as it seemed. He washed, changed his clothing, and armed with addresses copied on a sheet of paper, set out.

Doug took a deep breath and pressed the first doorbell. Now that he was actually about it, a wistful eagerness filled him.

The door opened to reveal the wary face of a young woman. At sight of Doug, the wariness vanished to be replaced by a smile of surprise. "Why, Doug Crandall! Of all people. Aren't you working? Where's Vickie?"

"That's what I came to find out, Ruth. You see, Vickie . . . Vickie has disappeared."

A gasp of shocked dismay left Ruth's lips. "Doug—no! Not Vickie!" Her hand flew to her face as though the horror which flooded it was a sudden stab of pain. There was something personal about her reaction, called out not so much by Doug's misfortune as by its effect upon some deep-rooted fear of her own.

"Alderdale," Ruth breathed. "Doug—Alderdale."

Doug nodded somberly. "That's what I'm afraid of. I don't see what else could have taken Vickie away."

"Oh, Doug, is there no escape?" Ruth's voice was almost a tearful wail. "We . . . we come here to the city to get away from it—the disappearances—and it's no use. All the boys and girls we knew and went to school with—gone. And now . . . now Vickie."

Escape. Doug wondered if there actually was no escape. He remained a while in an effort to calm the disturbance his visit had created. Then he continued on his quest, apprehensive now as to how the others would receive his news. He determined to be more subtle in his approach. Just a casual question. Seen Vickie? Oh, nothing important. Got the day off, but Vickie wasn't home. Thought she might have dropped over.

He repeated the question many times, gave the same explanation many times again. None had seen Vickie. There were many invitations for him and Vickie to come

and visit. Other than that, Doug got no results.

From one address to another, from one side of the city to another. Not all were married and home, like Ruth, to answer his call. Many were employed. But he was supplied with telephone numbers and he put in calls to offices and shops. He varied his approach in such cases, always careful not to cause alarm.

Results at one address brought an abrupt end to his quest. It was late afternoon by then. He had come to a furnished apartment building, in which two girls from Alderdale lived. The woman who answered Doug's ring explained that the girls did not live there any more.

"One of them disappeared, you see. Just vanished. It was all very strange. The other girl went all to pieces over it. She mentioned Alderdale, that town where so many people disappeared. That's why it seemed so strange. I've often wondered if there were any connection. I told my husband—"

"The other girl—what became of her?" Doug broke in.

"Oh, she packed her things and went away. Said she wanted to put as much distance between herself and Alderdale as possible."

"I see," Doug muttered. "Thanks." He turned away with unconscious curtness, his entire being engulfed by what he had learned. It was not only Vickie, then. There were others. Many people had come to the city from Alderdale. Of these he and Vickie had known only a comparative few. How many of these, too, had vanished.

Doug did not waste any thought in speculation. His only concern was that with the bleak, terrible certainty that all further search for Vickie was hopeless. Out of the dead ashes of this knowledge, a new purpose rose. Grimly, he set a new and sterner task for himself—to find the cause of the disappearances.

"A one-way ticket to Alderdale, please," Doug told the ticket agent.

The man nodded and turned to the ticket racks behind him. He did not complete the movement. Halfway around, something seemed to halt him; he turned abruptly back to Doug.

"Did you say Alderdale?" His voice was almost a whisper, intense, a little breathless. His eyes sharpened with a kind of awed interest upon Doug's face.

"Why, yes," Doug replied warily, a little disconcerted by the other's sudden change of manner. "I want a one-way ticket to Alderdale."

The ticket agent placed his hands on the counter and leaned toward the grille which separated him from Doug. There was something ponderously confiding about his attitude, as if impelled by a consuming urge to make known something of the most tremendous importance.

"Look, young fellow, that's a dangerous town to go to. If I

were you, I'd stay away. Too much of a risk. Lots of people have been disappearing there."

"I know that," Doug said. "My ticket, please."

The ticket agent took his hands from the counter and drew back, as though Doug had become someone with whom it would be safest not to be in close contact. His brows drew together over his staring eyes in a frown of incredulity.

"Sure you know what you're doing?" he asked hesitantly.

"Quite," Doug said. "And now, if you're satisfied, will you please let me have my ticket?"

Shaking his head, muttering under his breath, the ticket agent complied. His manner throughout the transaction bore a markedly noticeable constraint.

The ticket finally in his possession, Doug picked up his bag and strode quickly toward the tracks. He gnawed at his lower lip, his youthful features somber. The ticket agent's warning had left him disturbed. Up to now, he had known only the firm resolve to get to the bottom of the disappearances. Knowledge that he would be exposing himself to danger by going to Alderdale had not entered his thoughts.

Realization came to him that he possessed nothing which might give hope of immunity. He was from Alderdale. He was young—just over the borderline of maturity himself. He was, in fact, perfect prey for whatever it was that had snatched all the others like him into oblivion.

He felt a twinge of anxiety that was not motivated by any concern for his own well-being. Loss of Vickie had left him with little if any desire for continued existence. But he did not want anything to happen to him until he had finally

dragged the reason behind the disappearance into the light of day.

Doug found his coach, tossed his bag onto the overhead rack, settled into a seat. He gazed broodingly through the window, the disappointments of the past two weeks bitter in his mind.

He would have left for Alderdale immediately the day he learned of that other girl's disappearance, but a hope that the police might turn up something had made him wait. The police had explored every possibility in their search for Vickie, utilizing every branch, every advantage, of their far-flung organization. But they had been so many men dipping nets into an ocean for one particular fish. They had been so many men in quest of a name, a description, that was not there.

There had been calls. Would Mr. Crandall appear at hospital so-and-so? An unidentified accident case who answered the description of Mrs. Crandall. The drive —fear and hope boiling under a flame of impatience, tension that pulled nerves to shrieking tightness, that brought sweat to clenching hands. And then—the smell of disinfectant, a slender form on a white-painted bed. Brown-gold hair spread over a pillow, eyes under closed lids that might have been brown. But not Vickie.

An amnesia case. Brown-gold hair again, brown eyes that watched him hungrily, eagerly, pleading to be known. But not Vickie.

The morgue. Lights that did not quite dispel the gloom, the cold, dank atmosphere of death. A harsh, stone slab, and a still, still form beneath a sheet. The sheet pulled partially away— Again not Vickie.

Not Vickie. Never Vickie. Vickie was a name for someone who had been, someone who had shared his tiny fragment of world for a while, and then gone. Vickie was the name of a memory.

Doug was the only one off when the train reached Alderdale. Gripping his bag, he walked around the little depot building, down the gravel driveway, to the street. He walked slowly, glancing about him, eyes warm with a mingling of recollection and sadness.

Alderdale was not the town he remembered, in which he had lived and grown. Pathetic changes had taken place in the old, familiar scenes. Evidences of desertion and neglect were everywhere. Lawns had become overgrown with weeds, houses drab for lack of paint. Most of the houses were tenantless. For rent signs hung in almost every window.

People along the street were few, and those Doug passed were unknown to him. They stared in surprise when they noticed his bag, but when his glance met theirs, they averted their eyes, hurried away.

Sadness deepened within Doug. The friendly smile, the nod of head, which had been accorded even those who were not known, these, too, had become things of the past. Now there was only a distrust for

those who seemed to be strangers, a fear that averted eyes, that brought haste to walking feet.

An atmosphere of menace, of lurking danger, hung over the town. Doug could sense it as though it were a smell in the air, a sound carried on the wind.

He registered at a hotel. Later he went out to see how many of relatives and acquaintances he could find. It was with these that his investigations would begin. And whether it would be the beginning of the end or merely the end of the beginning, he dared not guess.

The end of two days found him still lacking anything which might have even remotely been considered a lead. His relatives and friends, such few as had remained in Alderdale, were overjoyed to see him again. They were desolated at the news of Vickie's disappearance. But they could offer nothing in the way of useful information.

Doug's quest brought him inevitably to Chief of Police Hargood, who secluded himself with his memories of better days, of robberies and burglaries, in a musty little office in the town courthouse.

"It's no use trying to dig up something here," Hargood said, after Doug had recounted his story for the dozenth time. "The government sent a lot of investigation men, and they did a lot of snooping and prying, but it didn't do any good. They all went back to Washington, or wherever they came from, without turning up a single thing. And I've been working on the disappearances ever since they started, and I'm no wiser than I was in the beginning."

"But isn't there something—anything—which might possibly be worked on?" Doug pleaded desperately.

Hargood scratched his unshaven jaw. "Well, there is, in a way. But I still think it's just a lot of nonsense. Anyway, you might go over and have a talk with Doc Wanamaker. He lives near that Asherton place up on Cedar Creek Road. The Doc's got what he calls a theory about the disappearances. Might be something in it, but personally I'd say the Doc likes to spin half-baked yarns in his old age."

Doc Wanamaker—Sylvester P. Wanamaker, M. D., the faded shingle over the porch read—was short, plump, bald. He might have appeared jolly and bouncing were it not for the inscrutability of his eyes behind their thick-lensed glasses. The glasses somehow made a difference in his entire aspect. They gave an owllike gravity to his full, red-cheeked face, made him at once knowing and unknown.

Doug was ushered cordially into an old-fashioned parlor, where he launched at once into an explanation of his visit. He finished, "Hargood told me you had a theory about the disappearances, and so I thought it would be a good idea to have a talk with you."

Wanamaker emitted a chuckle which was dry and somehow bit-

ter. "And I suppose Hargood told you also that I was mentally infirm if not downright crazy."

Doug said gently, "Hargood's opinion does not interest me in the slightest. He doesn't know anything, hasn't the ghost of an idea. Nobody has. You, at least, have a theory of what might be behind the disappearances. I have come to listen to your theory as a last hope, a last resort, not to use it to judge your sanity."

Something of the inscrutability about Wanamaker's eyes seemed to leave. It seemed to Doug that his words had torn away a barrier of reserve.

"Those are the kindest words I've heard in a long time," Wanamaker stated softly. He reached abruptly for a blackened, curve-stemmed pipe lying on the table beside his chair, and for some seconds was occupied busily by stuffing it with tobacco. Finally he glanced up. He did not light the pipe, but turned it in his pudgy hands.

"I have a theory, yes. Those who have heard it, have called it half-baked, crack-pot, and several other things more descriptive. But if you have an open, imaginative mind, one not shackled by precedent, bound in by the narrow range of human experience, you'll see that my theory has definite possibilities. I say possibilities. I shall not put myself on record as to whether or not my theory is true, since I lack the facts which would give me that right. But as a theory, a possible answer, it fits all the conditions better than anything which has yet been offered. Now—you've heard, no doubt, about the meteorite? *The* Meteorite?"

"The one that fell in Ned Johnson's garden on Cressy Street? Why, yes," Doug acknowledged, "that was around twenty-six years ago, sometime before I was born."

"Before you were born," Wanamaker said. "Remember that point. The fact that the meteorite fell before you were born—before all the others who finally disappeared were born—is of the most tremendous importance. The meteorite is the crux of everything.

"I'll review a few facts about it, things which are more or less common knowledge, determined not by myself but by men in much more appropriate branches of science. The meteorite was composed of some strange kind of radioactive substance, inclosed in a shell of nickle-iron. This shell was almost totally burned away by descent of the meteorite through Earth's atmosphere, but the radioactive interior was left intact. But it hadn't remained radioactive long; some element in the atmosphere or in the ground caused the radiation rate to speed up enormously, changing it within a short time to a leadlike substance.

"Scientists who came to investigate the meteorite finally carried it away, placed it in a glass case in a university museum. But something had been left—something which could not be taken away. Something which was to mean tragedy and heartbreak in all the

years that followed." Wanamaker leaned forward; his eyes glittered behind their thick lenses.

"While active, the meteorite threw off hard radiations—infernally hard, harder than Xrays. I do not expect you to know the work that has been done with Xrays on fruit flies. But I think you will understand when I say that hard radiations of the type thrown off by the meteorite have the ability to alter the patterns of the genes and chromosomes, the carriers of hereditary characteristics in the human germ plasm. And what is the result of such alterations? Mutations occur in the offspring of those affected. The meteorite—Wanamaker's voice dropped to a whisper—"did just that. It caused mutations. As to how extensive this was—you've seen the hole in Ned Johnson's garden?"

Doug nodded quickly. "It was big. About ten feet across."

"The hole is no longer the sightseeing spot it once was," Wanamaker resumed a trifle sadly. "But at that time, it was the most popular site in Alderdale. Before the meteorite was dug up, before it had ceased to be radioactive, everyone in town had turned out to see the hole. Your mother and father were there, as were Vickie's mother and father, the mothers and fathers of all the others. They had not married yet, or perhaps they had been waiting for better financial circumstances before bearing children. But they came—and those terrifically hard radiations pouring from the hole caused changes in their germ cells.

"You've heard of the Monsters. The Monsters were mutants, born of parents whose germ cells had been altered by the radiations thrown off by the meteorite. But not all the children brought into the world were grotesque travesties of human beings. Many were normal—at least outwardly so. Actually, they, too, were mutants, but this fact was not to become evident until many years later, because of a sort of delayed-action timing." Wanamaker looked at something beyond Doug, and his lips spread in a smile that was without humor.

"All my life I have never ceased to be astonished at the ingenuity and foresight of Nature. How well she provides for those of her children whom she favors! Plants and animals who have been favored are perfectly adapted to their environment, provided with every possible aid in the constant fight for survival. Look here—if an infant superman were to have appeared among the Monsters, with physical differences setting it distinctly apart from ordinary men, would it have been recognizable as a superman?"

Doug hesitated. "Well, I think that would have been rather difficult to determine."

"Exactly!" Wanamaker said, beaming in approval. "Few if any of the Monsters were similar physically. If a superman had appeared among them, it would have been

mistaken for just another Monster. It would have been confined in an institution, bound in by walls and bars for the rest of its life. Or, if allowed to live in the world of men, it would have been hounded and persecuted, shunned, mocked.

"But as I've said, Nature is ingenious and foresighted. If a superman were to appear whom she favored, he would *not* be recognizable as such—not until he was fully prepared to protect himself from the dangers with which we, the children of another race, might menace him." Wanamaker's eyes fixed upon Doug with a kind of owlish grimness. "That's exactly what happened. Supermen did appear—and they were so favored."

Doug stared. "You mean supermen appeared as a result of the radiations thrown off by the meteorite?"

"Yes," Wanamaker answered quietly.

"But that seems a little too far-fetched. It's like something out of fantasy."

"Why should it be?" Wanamaker demanded. "Hasn't it ever occurred to you that in some long-gone time we were supermen ourselves, superseding other creatures of an inferior manlike race? We, too, are the result of a mutation. And remember, the radiations from the meteorite eventually died out, which means that they ranged through a wide scale of intensity from high to low, each degree of intensity producing a different change in the germ plasm.

Is it too farfetched to suppose that one of those degrees of intensity produced supermen, whereas all the others resulted merely in Monsters?"

"I . . . I don't know," Doug faltered. "But what do supermen have to do with the disappearances?"

"Everything. Consider the facts. The disappearances began something over two years ago, at a time when the children of parents who had been affected by the radiation thrown off by the meteorite had reached maturity. Outwardly, these children were normal enough, but they were mutants. It was only when they reached maturity that the physical and mental changes which made them so became manifest. And why did the changes appear only when the children had reached maturity? Because maturity is a time when the individual is fully equipped mentally and physically to stand on his own feet. Because it is at maturity that a superman, finally recognizable as such, would be able to cope with his differentness.

"Thus the disappearances. Obviously, the changes which took place at maturity were so far-reaching that the mutants could live no longer in the world of ordinary men. They had to go somewhere where they could live in peace. Most likely they banded together, and even now are leading their strange lives in some hidden part of the earth."

Doug moistened his lips. His voice was tense. "If what you have to say is true, then . . . then I, too, am due to disappear."

Wanamaker lifted plump shoulders in a shrug. "If my theory is true. It has not yet been checked against fact, and until it is, who can say? Even if I did know for sure, I still would not be able to say, since I do not know all the factors involved in your own particular case."

Theory. Uncertainty. If. The hopelessness of his quest filled Doug with crosscurrents of despair and rage. Everywhere he turned, it seemed, there was only disappointment.

Hiding his dejection at the outcome of his visit as best he could, Doug took leave of Wanamaker. He returned to his room at the hotel, where he threw himself across the bed without bothering even to remove his coat. His fingers bit hard into the mattress, gripping convulsively, as though seeking solidity in a world which had suddenly become unsubstantial.

In the days that followed, the hotel room took on the quality of a prison cell to Doug. He had a desire for solitude that precluded any thought of boarding out, and finally he rented a small cottage on the outskirts of Alderdale. The loneliness of the place suited him ideally.

For a while he busied himself with putting the house in order, but when that was done an apathetic listlessness took hold of him.

He had no plans for the future. Existence in the present was without hope or meaning. He sank into spells of brooding that became longer, ever longer.

Doug neglected himself, neglected the cottage. He grew thin and wan, and then he took sick. It started with a headache one morning, and by the following evening he was too weak to move. The headache grew terrible in its intensity. Every throb of his heart brought pain that threatened to split his head. A fever swept him like a consuming flame. Night brought merciful unconsciousness.

He awoke the next afternoon, feeble, shaken, but better. Hunger gnawed within him, an almost unnatural hunger, and he felt an overpowering thirst. He fell upon his small stock of food ravenously, drank dipper after dipper of water from the bucket which he filled outside at the well. He felt still better, then, but some inexplicable feeling of strangeness seemed to persist. His illness was gone, but somehow he felt—queer.

He could not quite define his sensations. It was as though he were in a state of flux, with a moving and a shifting in every cell of his body. In moments of physical quiet, sounds came to him that yet were not sounds, for strain as he might with listening, they could not be heard.

The sensation continued, grew stronger. Something like an electric current thrilled through every fiber of his being. An activity filled his mind that was not thought. A flow of sound filled his ears that was not sound. An awareness of his surroundings deepened within him, a sharpening of perceptions, that made him see things, sense things, in ways he had never experienced before.

It continued—and then all wonder, all feeling of strangeness, left him. The transformation was complete.

He stood there, in the growing darkness of evening, with his golden aura pulsing around him, and he strained with his listening, not using his ears. His mind—his new mind—reached out and away, a hand fumbling in the darkness, seeking guidance. And it came—just as his new senses told him it would come.

"It is over?"

"Yes."

"You are ready?"

"Yes . . . oh, yes!"

The ship came for him, later, a silver bubble floating down out of the night. It touched ground gently; a circular opening appeared. Through the opening a figure ran. He did not need his eyes to know that her hair was brown-gold, that her eyes were brown.

"Vickie! Vickie!"

"Doug!"

There was no sound that could be heard. Just a man-figure and a woman-figure, two auras that blended into one.

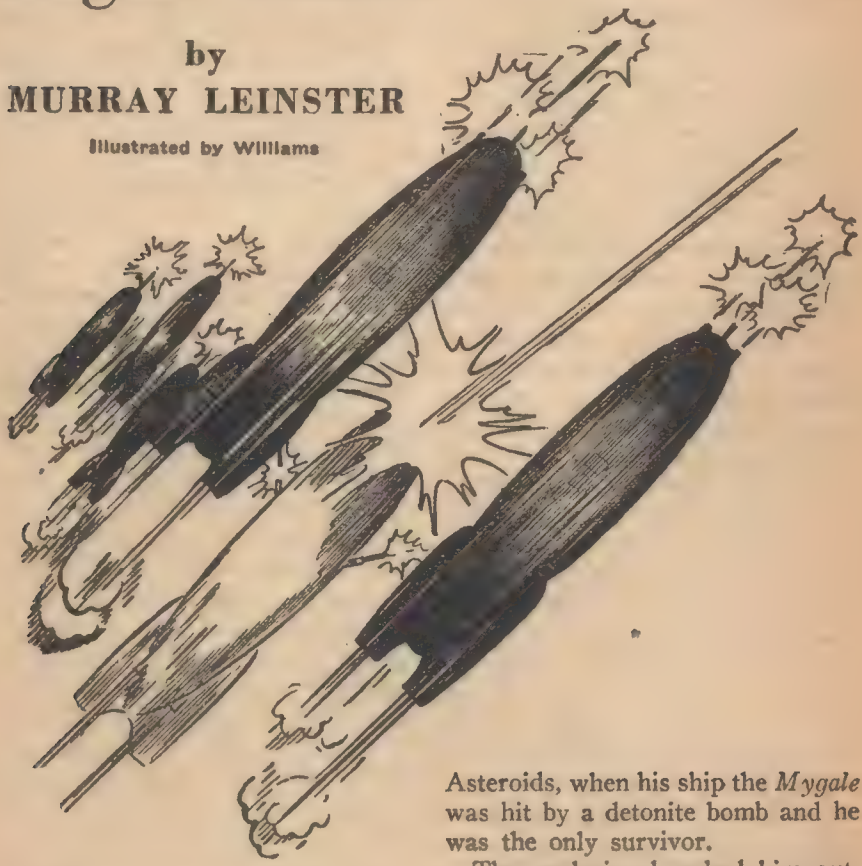
THE END.

He was a hard-headed guy, and had no respect for a man who lost his head in a tight place. But unlike most preachers of such philosophy, he proved it—with the aid of an enemy!

Tight Place

by
MURRAY LEINSTER

Illustrated by Williams



Steve Dennin never could understand why a man should lose his head just because he got into a tight place, but there was one time when he almost came to understand it. That was in the Battle of the Inner Asteroids, when his ship the *Mygale* was hit by a detonite bomb and he was the only survivor.

The explosion knocked him out, and the stars spun crazily and the sun was a silly circle over his space helmet when he opened his eyes again. For what might be seconds he gazed numbly at the streaks of light which flashed about him.

Then it all came back. He was spinning insanely in empty space, in his spacesuit, but out of his ship and with no way to get back to it. The crash before he blacked out had been a detonite shell hitting, and for him to be blown clear of the *Mygale* meant that she was finished. So was Steve Dennin, Physicist 1/Cl. He was now merely a hurtling, spinning mote in the space between the planets. He would go on and on in an insane, eccentric orbit some hundred and twenty million miles out from Sol, and ultimately his spacesuit would burst and he would become a shriveled, mummified object which would float on in a terrible emptiness forever.

He got out his atomic torch, There was no point in it, of course. Seeing where he was and what was happening wouldn't help at all. He didn't know how long he'd been unconscious. He might have nearly the full six-hour air-supply of an action spacesuit left, or he might have half an hour, or ten minutes, or none. He wouldn't lift his eyes to the pinholes in the instrument band inside his helmet to see. Instead, he turned on the torch. Its flame in empty space was a curious harsh white. It is not designed as a reaction device, but it does have a certain minute kickback. On earth it is unnoticeable, but a man can stop a spin with it—in time. Spacemen learn the trick in indoctrination school—without any real thought of ever using it. Steve kept his torch on for half an hour, while he savored the fix he was in. Presently the stars became moving specks of light instead of streaks. The sun slowed to a fiery ball. Later the stars quieted to imperceptible motion, and he could stare about him with straining eyes for hope. There was none. He floated in illimitable emptiness. He was, in effect, dead.

Somewhere probably a hundred miles away there was a ship with reactite flames pouring out of ports and air locks. Her fuel had caught and was burning at just the rate to blow her ports and doors but not detonate the ship herself. But as he saw her, she did fly apart in a monstrous flare. And something else was destroying itself in space a long way farther off. Fireballs puffed out of an invisible source in a frenzied stream. Then there was a white, actinic flash and the fireballs spread out in a globe, still burning, but no others followed them. Only ten miles away there was a writhing mass of vapor, expanding with incredible swiftness. A smoke bomb burning quite futilely in emptiness.

Aside from that—nothing. Steve Dennin turned very slowly, staring. Even in peace time, a man who is lost from a spaceship in flight is a dead man. Oh, he has a chance if his loss is discovered within minutes so the ship can be flung into proper deceleration on the micrometrically exact same course to have him overtake it, but then the exact instant of his loss needs to be known, too. And if the meteor detectors throw the ship off-course he will be lost regardless. But in wartime, a man separated from his ship in space is dead. Period.

The battle was over. It had lasted for seconds only as the two fleets hit each other head-on, interpenetrated each other, and went on to lick their wounds and perhaps wheel about for another crazy dash. The fleet of which Steve Dennin had been a part hadn't wanted that kind of a battle. It doesn't give an advantage to heavy fighting ships. But the enemy didn't want to stand up and fight. The enemy fleet was a vast number of small, sneak-hitting craft. A dash like this meant that only so many of them would be hit and they'd have a good chance to disable the heavy ships they couldn't face in normal battle. Steve Dennin could see no signs of their winning, though—or losing, either. There was nothing to see at all. He turned on his space phone from intraship to space-frequency and picked up exactly nothing. He'd been unconscious for some time. His own fleet was probably fifty thousand miles away by now, and still going. The enemy fleet would be no nearer. Steve Dennin, Physicist 1/C1, was finished.

There was a faint dimming of the stars. The expanding thin vapor of the smoke bomb had reached him. It was as thin as the contents of a vacuum tube, now, but its ultramicroscopic particles could catch and reflect the sunshine. Presently light-pressure would force them away from the sun. Meanwhile—

He licked his lips and raised his eyes. The band of instruments inside his helmet could be no more than an inch and a half from his eyeballs, and their dials would be less than a quarter-inch in diameter, but pinhole lenses made their readings clear. He had an hour and a half of air. His temperature-equalizers—for keeping the temperature on the sunlit and dark-side portions of his suit equal—had practically nothing to do, because of his past spinning. He had almost full power left in his Sikken cells. In every respect his suit was functioning perfectly. But—he was dead.

The vapor from the smoke bomb increased its reflection. His proper motion was probably almost toward the smoke bomb itself—which meant nothing. His space phones were silent. He was dead. He would go on breathing for an hour and a half. If he chose, he could extend it a little, but there was no purpose to be served. He felt very queer. Any man who knows he is going to die feels queer. He doesn't exactly believe it, somehow, and he feels an enormous impatience because he can't do anything about it.

Steve Dennin swore softly to himself. He would have preferred to be killed outright. Dying in a spacesuit in empty space is not especially painful, but it is harrowing. Just thinking about it has shipbound more than one man with a neurosis which makes him hysterical at the bare thought of putting on a spacesuit. Steve still couldn't understand why a man should lose his head just because he was in a tight place, but he could almost understand it, just then. So he swore.

His space phones boomed suddenly. His heart leaped. A voice

panted—seemingly in his ear — in the syllables of the enemy language. That voice was panicky—half-crazy. Steve felt a surge of sustaining hatred. Then he grinned wryly. Somebody else was in the same fix as himself. An enemy. But—

"Don't squawk to me, guy," he said sardonically into his own transmitter. "I was just cussing to myself. I can't hurt you or help you."

A pause. The enemy voice again. It spoke intelligibly, this time, with hardly any detectable accent.

"I surrender," panted the voice. "Come pick me up! I'll talk! I'll do anything!"

Steve Dennin's lips curled. That was one of the things his kind hated about the enemy. They'd say anything, do anything, promise anything. Treachery was an instinct with them. It had been of enormous advantage to them in the past, but like all instincts its usefulness was strictly limited. It was because they could betray not only all ideas of honor but their own kind too that they hadn't won the war. To a man already dead, like Steve, it was somehow comforting to have an enemy at hand to despise. He laughed.

"A lot of good talking will do," he said ironically. "I'm drifting. My ship got a hit and I got thrown clear. I can't do a thing."

The enemy voice sobbed:

"There's a wreck I'm circling. I'm in smoke—I set it off, hoping for help. The wreck's only a mile away! If I could get to it, I'd have air, and maybe they'll be salvaging sooner or later. Maybe it's got a communicator. Maybe—"

Steve Dennin denied hope. He said in a hard voice:

"Listen, guy! I'm heading into smoke. It's not likely, but we just barely might do each other some good. Do you want to call off the war for us two?"

The voice babbled in his space phone. It was hysterical. It was frantic. Steve grew scornful. He couldn't understand a man losing his head just because he was in a tight spot. The chance of anything coming of this contact was infinitesimal. The odds against his course being one that could be changed to utility by the means at hand was impossibly small. This fear-racked babbling of abject promises for what would be—well—a chance to try to do the impossible instead of dying without that chance—it was revolting.

"All right! All right!" said Steve impatiently. "I can't see much. Now listen! I'm going to put my space phone on beam. You listen and yell quick when you hear me."

He turned the switch to the beam-radiator and began to count. "One, two, three, four, five—" He had no hope. He told himself harshly that there was no faintest chance. As a matter of fact, there was a chance, but it was about that of drawing a straight flush pat. But it was better than not drawing a hand.

He used the torch to turn himself about. He had the sun—visible in the misty radiance all about—and the hard red speck which was Mars for reference points. Mars was just bright enough to show even through the smoke bomb's thinning mist of dry-colloid particles. In empty space a smoke bomb is a visual appeal for help. A standard Mark IV smoke bomb will make a visual signal of the thickness of a comet's tail which can be seen even when it has thinned out to a globe a hundred miles in diameter. Steve knew he could not be too far from this enemy who was his companion in disaster. He'd seen the smoke bomb swell out until it enveloped him. Besides, a space phone signal loses strength swiftly in space. Spherically radiated, space phones have a definitely limited range. So spacesuits broadcast only for working parties, but even action suits have beam antennae for communication over appreciable distances.

Steve now used his beam to discover the other man's bearing. He made a wide beam at first, moving it slowly while he counted. When the other man gasped that he heard, he narrowed the beam. When he had a good fix he noted his co-ordinates. His throat was dry. A fighting ship is dead-black on the outside when ready for action. Unless firing or burning, it is hardly visible against the stars. It was not surprising that he could not see the wreck—especially since the smoke bomb's spreading. But in any case, the odds against his approaching the man or the wreck within any useful distance was vanishingly small.

He told himself that, grimly. He had an hour and a half of air. He had a hundred feet of space rope. He had the usual knife, the usual atomic torch—damage-control in action is a matter for all hands on a spaceship—and he had nothing else.

In fifteen minutes, though, Dennin had to bite his lips to keep exultation out of his voice and hope out of his heart. He was approaching the other figure. Surprisingly close. The beam co-ordinates did not change. He might be fifty miles away, or two. His velocity relative to the other man might be one mile an hour, or one mile per second. But it could not be very great, or he would have flashed past in the tenuous and now already thinning-out space smoke.

"I've got an idea," he said steadily into the transmitter. "Swing around so the sun will be reflected from your face plate. Meanwhile I'll cut my volume and you tell me when it drops."

That is a very crude way to approximate distance in space. Helmet-phone receivers adjust volume automatically. But there is a minimum value at which the adjustment is unstable. Steve cut down to reach that value. The other man was practically hysterical. He could not control himself. He babbled lavish, abject pleadings to be helped, instead of concentrating on the distance-test.

The answer was that they were ten miles apart. Steve glanced up at the instrument band. He had, now, forty minutes of air left. He had no chance. When a later test showed nine miles and a later still showed eight, he knew there was no chance at all. This way of estimating distance is hardly more than a basis for guessing, but by the most favorable interpretation he would have too little time left—even if his course were improbably close—to do anything at all. He could stretch the air a little, perhaps, but he could not afford to. He needed all his alertness, and presently he would need strength.

He saw the winking speck of sunshine which was the other spacesuit face plate. The smoke was dissipating into the monstrous vacuum all about, and stars showed through it now. He could check his course by the position of stars behind the winking face plate. His trajectory was almost right. Almost. He wasted precious seconds searching for the wrecked spaceship the other man had spoken of. He saw it. There was a monstrous, gaping hole in its after part, but there would still be some air-tight compartments. There might even be a hope of contriving—but there was no use thinking such things. He was four miles from the wreck, but his course was well off to one side. In the time at his disposal he could not build up velocity to reach it. But he could come close to the spacesuit.

That spacesuit jerked frantically. The enemy voice babbled—

Steve unwrapped the end of his space rope from about his waist. He cut off a one-foot section. He threw it from him, violently. He cut a second and threw it from him violently. He cut a third—he could use the torch, but its value was negligible, as a reaction device, and an atomic flame is not a thing you want pointing steadily in one direction while you are making violent, throwing gestures.

Throwing away the bits of rope

would give him a tiny motion in space. He could estimate that each bit of rope, thrown off at the highest speed he could manage, would give him a velocity of one-tenth of a foot per second in the exactly opposite direction. Each throw, too, set him to spinning crazily. But two bits of rope would add up to two-tenths of a foot per second velocity. Twenty-five bits of rope would change his course by two and a half feet per second, which in one minute would mean a divergence of one hundred and fifty feet, in two minutes three hundred feet—in an hour it would amount to more than a mile. But Steve did not have an hour.

The smoke bomb's vapor had almost ceased to be. He drifted on. He would pass the wreck by almost a mile, but first he would come very close to the man in the spacesuit. There were many bits of wreckage floating about the derelict—none near the man. Steve felt scorn. He would have tried to reach one of them.

"Listen," he said in an iron-hard voice. "There's plenty of wreckage around. With my course and momentum, if we make contact I'm apt to carry you off into space with me. If you want to stay where you

are, we won't make contact. But if we catch, we can push against each other and reach separate bits of wreckage and dive in to the ship from them. Understand?"

The other man babbled. Steve compressed his lips. He looked up at his instruments. Fifteen minutes of air. He cut down the flow a little. He cut off a ten-foot section of rope and flung it away, carefully judging the angle.

The two spacesuits approached each other in emptiness. The sun was a faraway disk of flaring light. There were innumerable incurious stars. There was the slowly turning, shattered derelict which had been a sistership of Steve's own *Mygale*. It was blasted to uselessness, but it drifted on unchecked through unresisting space. And that fact explained Steve's small relative velocity. His ship and this one had been in the same formation, at the same speed, when hit.

Recognition of the wreck told other things. The survivors of its crew would have piled into an escape boat and gone on with the accelerating fleet, to be picked up later. The helpless man in the nearing spacesuit must have been in an enemy sneak boat—a craft assigned to disguise itself and mingle with an opposing fleet, sharing its formation and speed and course, but stealthily assassinating its companions as opportunity offers. Only in an enemy sneak boat could an enemy have shared the course and velocity of a ship of Steve's fleet. The sardonically humorous thing was that his sneak boat must have been destroyed by a shell from its own friends during the fifteen-second battle so recently past.

That was justice. Steve's kind of man despises sneak boat warfare, but this was no time to split ethical hairs. Both men were helpless and both were doomed. It was only reasonable for them to declare a personal truce. On Steve's part, truce existed. He drifted on toward the man who may have been the actual cause of the derelict's destruction. Masses of wreckage floated in the emptiness nearby, seemingly motionless but actually revolving in infinitely slow orbits about the vessel of which they had been parts.

"Most of my rope's gone," said Steve evenly. "Toss me yours. Steady, now!"

The other spacesuit kicked convulsively. A rope uncoiled in emptiness. It missed Steve by feet, but he lashed out with the rope end he had left and snatched it back. He held fast. His momentum was carrying him past the other man. The rope tautened and pulled. They went into a sort of insane merry-go-round, swinging about their common center of gravity, but both sharing Steve's motion which would carry him past the wreck. As a pair, they shared his former trajectory with reduced speed, but as individuals revolving about each other, each alternately moved toward the spaceship and away from it as they drifted on to go beyond it.

"Now we've got to work fast," said Steve evenly. "I haven't got

much air left. We'll pick bits of wreckage—"

Then a knife blade flashed blindingly in stark sunlight. The pull of the rope ceased. And a surge of sick, stifling rage swept over Steve Dennin. Their mutual revolution had offered the enemy an opportunity for treachery he had seized upon. At the moment when they were equally distant from the spaceship, but he was approaching it and Steve receding, he'd cut the rope. And he now floated triumphantly in toward the derelict, while Steve was flung outward and away at a tangent.

Steve had ten minutes of air at scant breathing. His enemy had been saved by his coming. And Steve's chance had been infinitesimal, at best, but he'd been cheated even of that. Now the enemy's voice came, triumphant and mocking, over the space phones. He thanked Steve derisively—

Steve used five seconds of his air in thick, hating profanity and then switched off the space phones so he could hear no more mockery. He was filled with rage so savage that it hurt, and it urged him on even more strongly than the love of life. He swung himself furiously to see. The other masses of wreckage—There was a huge quarter-section of rent and broken hull-plating, a quarter-mile out. He would float past it by a hundred yards.

He hauled in the rope — enemy rope, most of it, now—and cut off a section of it. He made it swiftly into a ball and hurled it. A second ball. A third. He could see the

TINY FOOTPRINTS— BIG BARK

There were the tiny, tiny footprints in the lab—then the furious, frantic barking of the big dog.

The inhuman little thing attacked John Fain's wife—viciously—and rumor in the town turned to panic and swelled to hysteria.

What had Fain done, by ghastly chance, in his lab?

That was the frightening, unspoken question to which Doc Savage had to find the answer. Be sure to read the fantastic story of THE WEE ONES in the August issue of

DOC SAVAGE

AT ALL NEWSSTANDS

effect. Using big masses, judging his speed and distance exactly, he floated with seemingly craziness in empty space, but—every action has its reaction, of equal moment and opposite sign. Then he realized that he would miss the mass of plating by twenty feet, and he had nothing to spare which would give him the necessary impetus in the necessary time-interval. He flailed what was left of the rope about—and it caught.

He had eight minutes of air left—and he was a mile and a quarter from the derelict. But his atomic torch was already in his hand as he pulled himself to the mass of debris. He hung fast by one hand and cut savagely with the torch. He caught the loosened section of plate with his magnetically energized shoe soles, swung it into position away from the ship, and kicked fiercely—with the magnetizing current off.

The cutaway piece went spinning away into emptiness. The larger mass, with Steve clinging to it, acquired some small velocity toward the spaceship. He cut away a second bit, and pushed it behind him with a strong, steady, violent heave.

Instantly he was cutting again. A strong heave imparts more energy—men's muscles being what they are—than the most violent of blows. Steve was using masses of plating which amounted to quarter-tons and more. He thrust them behind—and in so doing thrust the larger mass ahead. The whole mass may have weighed three tons. The part to which he clung acquired a neat half of the kinetic energy imparted by each sustained and violent shove, which meant that it acquired a precise fraction of the velocity given to the smaller part. Each kick gave the lessened remainder a greater velocity. Each push gave a greater increase. Steve was, in fact, applying his strength in the exact similitude of a rocket-motor to move himself and the mass by which he moved toward the ship with greater—and increasing—speed and much greater efficiency than would have been possible on earth.

When he had four minutes' air left, he saw his enemy, still floating toward the derelict. But Steve had already passed him, and was moving with a speed which would make his impact actually dangerous. He carved away sections and thrust them savagely away to correct his course. Then he reversed the process by which he had accelerated and pushed sections of the plating on ahead. That was to reduce his velocity to a safe collision speed.

Just before the small remnant of what had been a shattered quarter-section of hull crashed into the blasted opening in the spaceship's hull, Steve jumped with all his strength away from the ship he most fiercely desired to reach. The last mass of plating struck violently, but with an uncanny soundlessness in empty space. Steve landed behind it, more gently.

And Steve's air dial read zero. He felt the sensations of incipient strangulation. Here within the shattered hulk there was abysmal darkness. He switched on his helmet light and—with his lungs al-

ready laboring horribly, searched.

He found what he sought and heaved frantically while his lungs tried to burst. He stumbled into an intercompartment air lock and dragged the door shut behind him. Red spots floated before his eyes. He sagged against the inner door and clawed his face plate open as the inner door yielded.

And he breathed.

Five minutes later there was a crashing thud against some part of the wreckage outside. Steve had already, instinctively, taken a spaceman's immediate precaution. He'd gone to the compartment air trunk —which makes every section of a fighting ship a self-contained unit in case of damage—and recharged his air. It is routine to recharge air before removing a suit that has been used. This crash, then—

He took a hand blaster from its rack. He hesitated a moment, and then went out through the air lock to the broken-open section of the

hull. His magnetic shoe soles held him to the flooring. His helmet light glared. Nothing moved toward him, but there was a big section of iron plating in the act of a slow rebound from the outer hull.

He realized. In pushing carved-away bits of wreckage behind them so that he would reach the derelict, he had given them backward velocity relative to himself—not, in all cases, actual velocity away from the ship. Some two or three had followed him to his target at merely reduced speed. This was one of them, now bouncing away after hitting.

He flicked on his space phone, while he searched with his eyes for his late enemy.

A voice sobbed hysterically in his ears. It was that enemy. And Steve moved to stare out through the great break in the hull. He saw the other man a bare fifty feet away. But he was not approaching. His motion was even, was smooth, was inexorable. His spacesuit was starkly lighted by the far-distant sun. But it was swinging slowly but with absolute inevitability past the wreck. He had miscalculated. Perhaps in the slashing of the space rope. Perhaps he'd guessed wrong on the direction of rotation he and Steve had had about each other. In any case he'd missed the derelict. He was on his way past it, on out to emptiness, on to the terrible loneliness of forever-between-the-stars. His belt was empty. He'd thrown away his knife and atom torch in a vain attempt to change his course and reach the wrecked ship. He swung past, slowly, sobbing, and he made desperate swimming motions in the emptiness, trying to reach in toward the ship.

There was just one thing Steve could do. What rope he had left was far too short to reach. He slashed at a shattered metal girder with his torch. He cut away a mass that might have weighed thirty or forty pounds on Earth. He eased it out into emptiness, himself held firmly by his shoe soles.

"Guy," he said sardonically, "here's a helping hand. Use it, and I'll send you some more."

The mass of iron floated after the frantically swimming figure. It looked like a missile. Actually, it was the most literal possible sort of helping hand. It was moving away from the derelict, to be sure, but at no more than five or six feet per second. The panic-stricken man moved no faster than two. If he seized the slow-moving weight and flung it more swiftly away from the ship, he would gain an impetus toward it. At the least, the mass involved would have enabled him to get rid of his velocity of retreat.

But Steve's voice was not, to him, the voice of a Samaritan. It was the voice of an enemy whom he had betrayed only minutes since—who should by all reason have been lost in the emptiness toward which he now headed. The mass of metal moving toward him seemed a missile—something fiendishly designed to strike him, to drive him more terribly away from the haven he knew he had lost.

He shouted hoarsely at the first

sound of Steve's voice. But when he saw the iron floating toward him, it roused in him the frenzied despair of a cornered rat. He was helpless, weaponless, and—it seemed to him—was now to be driven from his hopeless hope of safety by things thrown to strike him and force him on to death.

He screamed in lunatic rage. The clumsy weight of iron reached him. And he did not seize it and fling it behind him. Shrieking crazily, he clutched it and threw it desperately—in maniacal hatred of the man whom he thought mocked him—back at Steve.

The mass of iron was arrested in its flight. It seemed to pause, and then drifted hesitantly, delicately, back toward the ship. The space-suited enemy had not flung it crushingly against Steve. He had thrown himself out to emptiness.

Steve, with another and larger mass ready-cut to send out to help his foe, stared after him in stupefaction. His space phone receivers rang with the thick-tongued, raving madness of the man now moving too fast and too far for any possible aid to reach him.

Steve switched off the phone and said indignantly, "What'd he want to lose his head for, just because he got in a tight place?"

There was nothing he could do now. Nothing. He shrugged his shoulders inside his spacesuit and went back through the air lock to contemplate the derelict's damaged but repairable engines.

THE END.

LOTTERY OF DEATH!

The Ball of Death was traditionally a gay Mardi Gras party. But this time, from behind a carnival mask, a murderer struck—for a pirate's prize of $100,000!

Was he that bulky gambler with political ambition? Or that suave, sallow character from the water-front? Only The Shadow could unmask the killer.

Read THE MASK OF MEPHISTO in the July issue of

THE SHADOW

AT ALL NEWSSTANDS

It wasn't ordinary war they waged—it was a strange underground battle between the Baldies and the Paranoids, strange because neither group dared let the humans know they fought!

The Lion

by LEWIS PADGETT

Illustrated by Williams

The best way of keeping a secret is to avoid even the appearance of secrecy. McNey whistled a few bars of Grief, and the vibrations set delicate machinery in operation. The dull amber of the walls and ceiling changed to a cool transparency. Polaroid crystal did tricks with the red glare of the sunset above the Catskills. The deep, cloudless blue sky hung empty overhead. But Barton's helicopter had already arrived, and soon Callahan would be here, too.

That Callahan would dare to come, and alone, gave a horrible

and the Unicorn

clarity to the danger. Twenty years ago a dagger would have ended the matter. But not permanently. Barton had used steel, and, while he had not completely failed, he had not succeeded either. The menace had grown.

McNey, standing by his desk, brushed a hand across his forehead and looked at his wet palm curiously. Hypertension. The result of this desperate, straining attempt to get in contact with Callahan, and the surprise of finding it far too easy. And now Barton as the catalyst—mongoose and snake.

There must be no clash—not yet. Somehow Barton must be kept from killing Callahan. The hydra had more than a hundred heads, and the Power as well. There lay the chief peril, the tremendous secret weapon of the mad telepaths.

But they weren't mad. They were paranoid types, coldly logical, insane in one regard only, their blind warped hatred for nontelepaths. In twenty years, thirty, forty perhaps, they had—not grown—but organized, until today the cancerous cells were spotted throughout the towns of America, from Modoc and American Gun to Roxy and Florida End.

I'm old, McNey thought. *Forty-two, but I feel old. The bright dream I grew up with—it's fading, blotted out by a nightmare.*

He glanced in a mirror. He was big-boned, large-framed, but soft. His eyes were too gentle, not suited for battle. His hair—the wig all telepathic Baldies wore—was still dark, but he'd buy a graying one soon.

He was tired.

He was on leave of absence from Niagara, one of the science towns; but there were no furloughs from his secret job. That was a job many Baldies held, and one no nontelepaths suspected—a combination of policing and extermination. For paranoid Baldies could not be allowed to survive. That was axiomatic.

Over the ridge lay the town. McNey let his gaze travel downward, across pine and sumac groves, to the pool in the brook where trout hid under shadowed overhangs. He opened part of the wall and let the cool air enter. Absently he whistled the phrase that would start the supersonics and keep mosquitoes at a respectful distance. On the flagged walk below he saw a slim figure, trim in light slacks and blouse, and recognized Alexa, his adopted daughter. The strong family instinct of Baldies had made adoption a commonplace.

The fading sunlight burnished her glossy wig. He sent a thought down.

Thought you were in the village. Marian's at the show.

She caught the hint of disappointment in his mind. *Intrusion. Darryl?*

For an hour or two—

O.K. There's an apple-blossom sequence in the pic, and I can't stand the smell of the stuff. Marian asked me—I'll catch a dance or two at the Garden.

He felt wretched as he watched her go off. In the perfect telepathic world there would be no need for secrecy or evasion. That, indeed, was one of the drawbacks of the paranoid system—the mysterious, untappable wave length on which they could communicate. The thing called the Power. It was, McNey thought, a secondary characteristic of the mutation itself, like baldness, and yet more strictly limited. It seemed that only the paranoid Baldies could develop the Power. Which implied two separate and distinct mutations. Considering the delicate balance of the

mental machine, that was not improbable.

But true rapport was vital for a complete life. Telepaths were more sensative than nontelepaths; marriage was more complete; friendship warmer; the race a single living unit. For no thought could be hidden from probing. The average Baldy refrained, from courtesy, when a rapport mind went blurred; yet, ultimately, such blurring should become unnecessary. There need be no secrets.

Both Marian and Alexa knew of McNey's connection with the organization, but it was a tacit understanding. They knew without words when McNey did not want to answer questions. And because of the deep trust that comes from telepathic understanding, they refrained from asking any, even in their thoughts.

Alexa was twenty now. Already she had felt the reaction of being an outsider in a world complete in itself. For Baldies were still intruders, no matter how much rationalization was used. The great majority of humanity was nontelepathic — and fear, distrust, and hatred lay latent in that giant tribunal that daily passed judgment upon the Baldy mutation.

Capital punishment, McNey knew very well, was the sentence contingent upon a thumbs-down verdict. And if the thumbs ever turned down—

If the nontelepaths ever learned what the paranoids were doing—

Barton was coming up the path. He walked with the lithe springiness of youth, though he was over sixty. His wig was iron-gray, and McNey could sense the wary alertness of the hunter's thoughts. Technically Barton was a naturalist, a big-game hunter. His quarry was sometimes human, however.

Upstairs, Dave, McNey thought.

Right. Is it here yet?

Callahan's coming soon.

The thoughts did not mesh. The semantic absolute symbol for Callahan was simpler in McNey's mind; in Barton's it was colored by associations from a half-lifetime of conflict with a group he hated, by now, almost pathologically. McNey never knew what lay behind the violence of Barton's hatred. Once or twice he had caught fleeting mental images of a girl, dead now, who had once helped Barton, but such thoughts were always as inchoate as reflections in rippling water.

Barton came up in the dropper. He had a seamed, swarthy face, and a trick of smiling lopsidedly so that the grimace was almost a sneer. He sat down in a relaxer, sliding his dagger forward into a more handy position, and thought for a drink. McNey supplied Scotch and soda. The sun had dropped beyond the mountain, and the wind grew colder. Automatic induction began to warm the room.

Lucky you caught me. On my way north. Trouble.

About Us?

Always.

This time what?

Barton's thoughts broadened.

Peril to Baldies { *Wigless Baldy with Hedgehound group*
Villages being raided
Wigless one untrained telepathically.

Wigless? Paranoid?

Know little. Can't establish communication.

But—Hedgehounds?

Barton's sneer was reflected by his thought.

Savages. I'll investigate. Can't let the humans connect Us with raiding Hedgehounds.

McNey was silent, pondering. It had been a long time since the Blow-up, when hard radiations had first created the mutations, and brought about the decentralization of a culture. But those days had seen the beginnings of the Hedgehounds, the malcontents who had refused to join the village unions, who had fled to the woods and the backlands and lived the savage life of nomads—but always in small groups, for fear of the omnipresent atomic bombs. Hedgehounds weren't seen often. From helicopters you might catch glimpses of furtive figures trailing in single file through the Limber-lost country, or in the Florida Everglades, or wherever the old forests stood. But by necessity they lived hidden in the backwoods. Occasionally there were quick raiding parties on isolated villages—so few, however, that no one considered the Hedgehounds a menace. They were nuisances at best, and for the most part they stayed away from towns.

To find a Baldy among them was less singular than amazing. Telepaths formed a racial unit, branching out into family groups. As infants grew, they were assimilated. *Might be some sort of paranoid plot. Dunno what sort.*

McNey tipped his drink. *No use killing Callahan, you know,* he pointed out.

Tropism, Barton's thought said grimly. *Taxis. When I catch 'em, I kill 'em.*

Not—

Certain methods work on Them. I've used adrenalin. They can't foresee a berserker's actions in a fight, because he can't foresee his own. You can't fight Them as you'd play a chess game, Darryl. You've got to force them to limit their powers. I've killed some by making them fight with machines, which don't react as instantly as the mind. In fact—shadow of bitterness—we dare make no plans ahead. The paranoids can read our minds. Why not kill It?

Because we may have to compromise.

The blasting wave of hot, violent fury made McNey wince. Barton's negative was stunningly emphatic.

McNey turned his glass, watching the moisture condense. *But the paranoids are expanding.*

Find a way of tapping their Power, then!

We're trying. There's no way.

Find a secret wave length for us.

McNey's mind blurred. Barton looked away mentally. But he had caught a scrap of something. He

tried not to ask the question burning within him.

McNey said aloud, "Not yet, Dave. I mustn't even think it; you know that."

Barton nodded. He, too, realized the danger of working out a plan in advance. There was no effective barrier that could be erected against the paranoids probing.

Don't kill Callahan, McNey pleaded. *Let me lead.*

Unwillingly Barton assented. *It's coming. Now.*

His more disciplined mind, trained to sense the presence of the radiations that meant intelligence, had caught stray fragments from the distance. McNey sighed, put down his glass, and rubbed his forehead.

Barton thought. *That Baldy with the Hedgehounds. May I bring him here if necessary?*

Of course.

Then a new thought came in, confident, strong, calm. Barton moved uneasily. McNey sent out an answer.

After a minute Sergei Callahan stepped out of the dropper and stood waiting, warily eying the naturalist. He was a slim, blond, soft-featured man, with hair so long and thick that it was like a mane. Only affectation made paranoids wear wigs of such extreme style—that and their natural maladjustment.

He didn't look dangerous, but McNey felt as though a feral beast had come into the room. What had the medievalists symbolized by the lion? Carnal sin? He couldn't remember. But in Barton's mind he caught the echo of a similar thought: *a carnivore, to be butchered!*

"How d'you do," Callahan said, and because he spoke aloud, McNey knew that the paranoid had classed his hosts as a lower species, and gave them patronizing contempt. It was characteristic of the paranoids.

McNey rose; Barton didn't. "Will you sit down?"

"Sure." Callahan dropped on a relaxer. "You're McNey. I've heard of Barton."

"I'm sure you have," the hunter said softly. McNey hastily poured drinks. Barton left his untasted.

Despite the silence, there was something in the room that had the quality of fourth-dimensional sound. There was no attempt at direct telepathic communication, but a Baldy is never in complete mental silence, except in the stratosphere. Like half-heard, distant music of toccata and fugue the introspective thoughts beat dimly out. Instinctively one man's mental rhythm sought to move in the same pattern as another's, as soldiers automatically keep step. But Callahan was out of step, and the atmosphere seemed to vibrate faintly with discord.

The man had great self-confidence. Paranoids seldom felt the occasional touches of doubt that beset the straight-line Baldies, the nagging, inevitable question telepaths sometimes asked themselves: *Freak or true mutation?* Though several generations had passed since the Blowup, it was still too early to tell. Biologists had experimented,

sadly handicapped by the lack of possible controls, for animals could not develop the telepathic function. Only the specialized colloid of the human brain had that latent power, a faculty that was still a mystery.

By now the situation was beginning to clarify a trifle. In the beginning there had been three distant types, not recognized until after the post-Blowup chaos had subsided into decentralization. There were the true, sane Baldies, typified by McNey and Barton. There were the lunatic offshoots from a cosmic womb raging with fecundity, the teratological creatures that had sprung from radiation-battered germ plasm — two-headed fused twins, cyclops, Siamese freaks. It was a hopeful commentary that such monstrous births had almost ceased.

Between the sane Baldies and the insane telepaths lay the mutation-variant of the paranoids, with their crazy fixation of egotism. In the beginning the paranoids refused to wear wigs, and, if the menace had been recognized then, extermination would have been easy. But not now. They were more cunning. There was, for the most part, nothing to distinguish a paranoid from a true Baldy. They were well camouflaged and safe, except for the occasional slips that gave Barton and his hunters a chance to use the daggers that swung at every man's belt.

A war — completely secret, absolutely underground by necessity— in a world unconscious of the deadly strife blazing in the dark. No non-telepath even suspected what was happening. But the Baldies knew.

McNey knew, and felt a sick shrinking from the responsibility involved. One price the Baldies paid for survival was the deification of the race, the identification of self family and friends with the whole mutation of telepaths. That did not include the paranoids, who were predators, menacing the safety of all Baldies on earth.

McNey, watching Callahan, wondered if the man ever felt self-doubt. Probably not. The feeling of inferiority in paranoids made them worship the group because of pure egotism; the watchword was *We are supermen! All other species are inferior.*

They were not supermen. But it was a serious mistake to underestimate them. They were ruthless, intelligent, and strong. Not as strong as they thought, though. A lion can easily kill a wild hog, but a herd of hogs can destroy a lion.

"Not if they can't find him," Callahan said, smiling.

McNey grimaced. "Even a lion leaves spoor. You can't keep on with your plan indefinitely without the humans suspecting, you know."

Contempt showed in Callahan's thought. "They're not telepaths. Even if they were, we have the Power. And you can't tap that."

"We can read your minds, though," Barton put in. His eyes were glowing. "We've spoiled some of your plans that way."

"Incidents," Callahan said. He waved his hand. "They haven't any effect on the long-term program. Besides, you can read only what's

above the conscious threshold of awareness. We think of other things besides the Conquest. And—once we arrange another step—we carry it out as quickly as possible, to minimize the danger of having the details read by one of the traitors."

"So we're traitors now," Barton said.

Callahan looked at him. "You are traitors to the destiny of our race. After the Conquest, we'll deal with you."

McNey said, "Meanwhile, what will the humans be doing?"

"Dying," Callahan said.

McNey rubbed his forehead. "You're blind. If a Baldy kills one human, and that's known, it'll be unfortunate. It might blow over. If two or three such deaths occur, there'll be questions asked and surmises made. It's been a long while since we had Baldy lynchings, but if one smart human ever guesses what's going on, there'll be a world-wide pogrom that will destroy every Baldy on earth. Don't forget, we can be recognized." He touched his wig.

"It won't happen."

"You underestimate humans. You always have."

"No," Callahan said, "that's not true. But you've always underestimated Us. You don't even know your own capabilities."

"The telepathic function doesn't make supermen."

"We think it does."

"All right," McNey said, "we can't agree on that. Maybe we can agree on other things."

Barton made an angry sound. Callahan glanced at him.

"You say you understand our plan. If you do, you know it can't be stopped. The humans you're so afraid of have only two strong points: numbers and technology. If the technology's smashed, We can centralize, and that's all We need. We can't do it now, because of the atomic bombs, of course. The moment we banded together and revealed ourselves—*blam!* So—"

"The Blowup was the last war," McNey said. "It's got to be the last. This planet couldn't survive another."

"The planet could. And we could. But humanity couldn't."

Barton said, "Galileo doesn't have a secret weapon."

Callahan grinned at him. "So you traced that propaganda, did you? But a lot of people are beginning to believe Galileo's getting to be a menace. One of these days, Modoc or Sierra's going to lay an egg on Galileo. It won't be our affair. Humans will do the bombing, not Baldies."

"Who started the rumor?" Barton asked.

"There'll be more, a lot more. We'll spread distrust among the towns—a long-term program of planned propaganda. It'll culminate in another Blowup. The fact that humans would fall for such stuff shows their intrinsic unfitness to rule. It couldn't happen in a Baldy world."

McNey said, "Another war would mean the development of anticommunication systems. That'd play

into your hands. It's the old rule of divide and fall. As long as radio, television, helicopter and fast-plane traffic welds humans together, they're racially centralized."

"You've got it," Callahan said. "When humanity's lowered to a more vulnerable status, we can centralize and step in. There aren't many truly creative technological brains, you know. We're destroying those—carefully. And we can do it, because we can centralize mentally, through the Power, without being vulnerable physically."

"Except to Us," Barton said gently.

Callahan shook his head slowly. "You can't kill us all. If you knifed me now, it wouldn't matter. I happen to be a co-ordinator, but I'm not the only one. You can find some of Us, sure, but you can't find Us all, and you can't break Our code. That's where you're failing, and why you'll always fail."

Barton ground out his cigarette with an angry gesture. "Yeah. We may fail, at that. But you won't win. You can't. I've seen a pogrom coming for a long while. If it comes, it'll be justified, and I won't be sorry, provided it wipes out all of you. We'll go down too, and you'll have the satisfaction of knowing that you've destroyed the entire species through your crazy egotism."

"I'm not offended," Callahan said. "I've always contended that your group was a failure of the mutation. We are the true supermen—unafraid to take our place in the universe, whereas you're content to live on the crumbs the humans drop from their table."

"Callahan," McNey said suddenly, "this is suicidal. We can't—"

Barton sprang out of his chair and stood straddle-legged, glowering furiously. "Darryl! Don't beg the swine! There's a limit to what I'll stand!"

"Please," McNey said, feeling very helpless and impotent. "We've got to remember that we're not supermen, either."

"No compromise," Barton snapped. "There can't be any appeasement with those wolves. Wolves—hyenas!"

"There'll be no compromise," Callahan said. He rose, his leonine head a dark silhouette against the purple sky. "I came to see you, McNey, for just one reason. You know as well as I that the humans mustn't suspect our plan. Leave us alone, and they won't suspect. But if you keep trying to hinder us, you'll just increase the danger of discovery. An underground war can't stay underground forever."

"So you see the danger, after all," McNey said.

"You fool," Callahan said, almost tolerantly. "Don't you see we're fighting for you, too? Leave us alone. When the humans are wiped out, this will be a Baldy world. You can find your place in it. Don't tell me you've never thought about a Baldy civilization, complete and perfect."

"I've thought about it," McNey assented. "But it won't come about through your methods. Gradual assimilation is the answer."

"So we'll be assimilated back into the human strain? So our children will be degraded into hairy men? No, McNey. You don't recognize your strength, but you don't seem to recognize your weakness, either. Leave us alone. If you don't, you'll be responsible for any pogrom that may come."

McNey looked at Barton. His shoulders slumped. He sank lower in his relaxer.

"You're right, after all, Dave," he whispered. "There can't be any compromise. They're paranoids."

Barton's sneer deepened. "Get out," he said. "I won't kill you now. But I know who you are. Keep thinking about that. You won't live long—my word on it."

"You may die first," Callahan said softly.

"Get out."

The paranoid turned and stepped into the dropper. Presently his figure could be seen below, striding along the path. Barton poured a stiff shot and drank it straight.

"I feel dirty," he said. "Maybe this'll take the taste out of my mouth."

In his relaxer McNey didn't move. Barton looked at the shadowy form sharply.

He thought: *What's eating you?*

I wish . . . I wish we had a Baldy world now. It wouldn't have to be on earth. Venus or even Mars. Callisto—anywhere. A place where we could have peace. Telepaths aren't made for war, Dave.

Maybe it's good for them, though. You think I'm soft. Well, I am. I'm no hero. No crusader. It's the microcosm that's important, after all. How much loyalty can we have for the race if the family unit, the individual, has to sacrifice all that means home to him?

The vermin must be destroyed. Our children will live in a better world.

Our fathers said that. Where are we?

Not yet lynched, at any rate. Barton laid his hand on McNey's shoulder. *Keep working. Find the answer. The paranoid code must be cracked. Then I can wipe them out—all of them!*

McNey's thought darkened. *I feel there will be a pogrom. I don't know when. But our race hasn't faced its greatest crisis yet. It will come. It will come.*

An answer will come too, Barton thought. *I'm going now. I've got to locate that Baldy with the Hedgehounds.*

Good-bye, Dave.

He watched Barton disappear. The path lay empty thereafter. He waited, now, for Marian and Alexa to return from the town, and for the first time in his life he was not certain that they would return.

They were among enemies now, potential enemies who at a word might turn to noose and fire. The security the Baldies had fought for peacefully for generations was slipping away from underfoot. Before long Baldies might find themselves as homeless and friendless as Hedgehounds—

A too-elastic civilization leads to anarchy, while a too-rigid one will

fall before the hurricane winds of change. The human norm is arbitrary; so there are arbitrary lines of demarcation. In the decentralized culture, the social animal was better able to find his rightful place than he had been in thousands of years. The monetary system was founded on barter, which in turn was founded on skill, genius, and man-hours. One individual enjoyed the casual life of a fisherman on the California coast; his catch could bring him a televisor set designed by a Galileo man who enjoyed electronics—and who also liked fish.

It was an elastic culture, but it had its rigidities. There were misfits. After the Blowup, those antisocials had fled the growing pattern of towns spreadings over America and taken to the woods, where individualism could be indulged. Many types gathered. There were bindle stiffs and hobos, Cajuns and crackers, paisanos and Bowery bums—malcontents, antisocials, and those who simply could not be assimilated by any sort of urban life, not even the semirural conditions of the towns. Some had ridden the rods, some had walked the highways of a world that still depended on surface travel, and some were trappers and hunters—for even at the time of the Blowup there had been vast forest tracts on the North American continent.

They took to the woods. Those who had originally been woodsmen knew well enough how to survive, how to set birdsnares and lay traps for deer and rabbit. They knew what berries to pick and what roots to dig. The others—

In the end they learned, or they died. But at first they sought what they thought to be an easier way. They became brigands, swooping down in raids on the unifying towns and carrying off booty—food, liquor and women. They mistook the rebirth of civilization for its collapse. They grouped together in bands, and the atomic bombs found targets, and they died.

After a while there were no large groups of Hedgehounds. Unity became unsafe. A few score at most might integrate, following the seasons in the north temperate zones, staying in the backland country in more tropical areas.

Their life became a combination of the American pioneer's and the American Indian's. They migrated constantly. They re-learned the use of bow and javelin, for they kept no contact with the towns, and could not easily secure firearms. They drifted in the shallows of the stream of progress, hardy, brown woodmen and their squaws, proud of their independence and their ability to wrest a living from the wild.

They wrote little. But they talked much, and by night, around campfires, they sang old songs—"Barbara Allen," "The Twa Corbies," "Oh Susanna," and the folk ballads that last longer than Senates and Parliaments. Had they ridden horseback, they would have known the songs based on the rhythm-patterns of equine gait; as it was, they walked, and knew marching songs.

Jesse James Hartwell, leader of his little band of Hedgehounds, was superintending the cooking of bear steaks over the campfire, and his bass voice rolled out now, muffled and softened by the pines that screened camp from brook. His squaw, Mary, was singing too, and presently others joined in, hunters and their wives—for squaw no longer carried the derogatory shade of meaning it once had done. The attitude the Hedgehounds had toward their wives was a more realistic version of the attitudes of medieval chivalry.

"Bring the good old bugle, boys, we'll sing another song—"

It was dark by the stream. They had been late in finding a camping place tonight; the hunt for the bear had delayed them, and after that it had been difficult to find fresh water. As always when the tribe was irritable, there had been half-serious raillery at Lincoln Cody's expense. It was, perhaps, natural for any group to sense the mental difference—or superiority—of a Baldy, and compensate by jeering at his obvious physical difference.

Yet they had never connected Linc with the town Baldies. For generations now telepaths had worn wigs. And not even Linc himself knew that he was a telepath. He knew that he was different, that was all. He had no memory of the helicopter wreck from which his infant body had been taken by Jesse James Hartwell's mother; adopted into the tribe, he had grown up as a Hedgehound, and had been accepted as one. But though they considered him one of theirs, they were too ready to call him "skinhead"—not quite in jest.

"Sing it as we used to sing it, fifty thousand strong,
While we were marching through Georgia . . ."

There were twenty-three in Hartwell's band. A good many generations ago, one of his ancestors had fought with the Grand Army of the Republic, and had been with Sherman on his march. And a contemporary of that soldier, whose blood also ran in Hartwell's veins, had worn Confederate gray and died on the Potomac. Now twenty-three outcast Hedgehounds, discards of civilization, huddled about the fire and cooked the bear they had killed with spear and arrow.

The chorus burst out vigorously.

"Hurrah! Hurrah! We bring the jubilee,
Hurrah! Hurrah! The flag that makes men free,
So we sang the chorus from Atlanta to the sea
While we were marching through Georgia."

There was a gray scar of desolation where Atlanta had been. The bright, clean new towns dotted Georgia, and helicopters hummed to the sea and back again now. The great War between the States was a memory, shadowed by the greater conflicts that had followed. Yet in that still northern forest vigorous voices woke the past again.

Linc rubbed his shoulders against the rough bark of the tree and yawned. He was chewing the bit of a battered pipe and grateful for the momentary solitude. But he could sense—feel—understand stray fragments of thoughts that came to him from around the campfire. He did not know they were thoughts, since, for all he knew, Hartwell and the others might feel exactly the same reactions. Yet, as always, the rapport made him faintly unhappy, and he was grateful for the—something—that told him Cassie was coming.

She walked softly out of the shadow and dropped beside him, a slim, pretty girl a year younger

than his seventeen years. They had been married less than a year; Linc was still amazed that Cassie could have loved him in spite of his bald, gleaming cranium. He ran his fingers through Cassie's glossy, black hair, delighting in the sensuous feel of it, and the way it ran rippling across his palm.

"Tired, hon?"

"Nope. You feeling bad, Linc?"

"It's nothing," he said.

"You been acting funny ever since we raided that town," Cassie murmured, taking his brown hand and tracing a pattern with her forefinger across the calloused palm. "You figure that wasn't on the beam for us to do, maybe."

"I dunno, Cassie," he sighed, his arm circling her waist. "It's the third raid this year—"

"You ain't questioning Jesse James Hartwell?"

"S'pose I am?"

"Well, then," Cassie said demurely, "you better start considering a quick drift for the two of us. Jesse don't like no arguments."

"No more do I," Linc said. "Maybe there won't be no more raids now we're southering."

"We got full bellies, anyhow, and that's more than we had across the Canada line. I never saw a winter like this, Linc."

"It's been cold," he acknowledged. "We can make out. Only thing is—"

"What?"

"I kinda wish you'd been along on the raids. I can't talk to nobody else about it. I felt funny. There was voices inside my head, like."

"That's crazy. Or else conjure."

"I'm no hex man. You know that, Cassie."

"And you ain't been smoking crazy weed." She meant the marijuana that grew wild in the backlands. Her gaze sought his. "Tell me what it's like, Linc. Bad?"

"It ain't bad and it ain't good. It's mixed up, that's all. It's sort of like a dream, only I'm awake. I see pictures."

"What pictures, Linc?"

"I don't know," he said, looking into the darkness where the brook chuckled and splashed. "Because half the time it ain't me when that happens. I get hot and cold inside. Sometimes it's like a music in my head. But when we raided that town it was plain bad, Cassie hon." He seized a bit of wood and tossed it away. "I was like that chip tossed around in the water. Everything was pulling at me every which way."

Cassie kissed him gently. "Don't pay no mind to it. Everybody gets mixed up once in a while. Once we get more south, and the hunting's good, you'll forget your vapors."

"I can forget 'em now. You make me feel better, just being with you. I love the smell of your hair, sweet." Linc pressed his face against the cool, cloudy darkness of the girl's braids.

"Well, I won't cut it, then."

"You better not. You got to have enough hair for both of us."

"You think that matters to me, Linc? Boone Curzon's bald, and he's plenty handsome."

"Boone's old, near forty. That's why. He had hair when he was young."

Cassie pulled up some moss and patted it into shape on Linc's head. She smiled at him half-mockingly. "How's that? Ain't nobody anywhere that's got green hair. Feel better now?"

He wiped his scalp clean, pulled Cassie closer and kissed her. "Wish I never had to leave you. I ain't troubled when you're around. Only these raids stir me up."

"Won't be no more of 'em, I guess."

Linc looked into the dimness. His young face, seamed and bronzed by his rugged life, was suddenly gloomy. Abruptly he stood up.

"I got a hunch Jesse James Hartwell's planning another."

"Hunch?" She watched him, troubled. "Maybe it ain't so."

"Maybe," Linc said doubtfully. "Only my hunches work pretty good most times." He glanced back toward the fire. His shoulders squared.

"Linc?"

"He's figgering on it, Cassie. Sitting there thinking about the chow we got at that last town. It's his belly working on him. I ain't going to string along with him."

"You better not start nothing."

"I'm gonna . . . talk to him," Linc said almost inaudibly, and moved into the gloom of the trees. From the circle of firelight a man sent out a questioning challenge; the eerie hoot of an owl, mournful and sobbing. Linc understood the inflection and answered with the caw of a raincrow. Hedgehounds had a language of their own that they used in dangerous territory, for there was no unity among the tribes, and some Hedgehounds were scalpers. There were a few cannibal groups, too, but these degenerates were hated and killed by the rest whenever opportunity offered.

Linc walked into camp. He was a big, sturdy, muscular figure, his strong chest arched under the fringed buckskin shirt he wore, his baldness concealed now by a squirrelhide cap. Temporary shelters had been rigged up, lean-tos, thatched with leaves, gave a minimum of privacy, and several squaws were busily sewing. At the cookpot Bethsheba Hartwell was passing out bear steaks. Jesse James Hartwell, an oxlike giant with a hook nose and a scarred cheek that had whitened half of his beard, ate meat and biscuits with relish, washing them down with green turtle soup—part of the raid's loot. On an immaculate white cloth before him was spread caviar, sardines, snails, chow chow, antipasto, and other dainties that he sampled with a tiny silver fork that was lost in his big, hairy hand.

"C'mon and eat, skinhead," Hartwell rumbled. "Where's your squaw? She'll get mighty hungry."

"She's coming," Linc said. He didn't know that Cassie was crouching in the underbrush, a bared throwing-knife in her hand. His thoughts were focused on the chief, and he could still sense what he had called his hunch, and which was actually undeveloped telepathy. Yes,

Hartwell was thinking about another raid.

Linc took a steak from Bethsheba. It didn't burn his calloused hands. He squatted near Hartwell and bit into the juicy, succulent meat. His eyes never left the bearded man's face.

"We're out of Canada now," he said at last. "It's warming up some. We still heading south?"

Hartwell nodded. "You bet. I don't figure on losing another toe with frostbite. It's too cold even here."

"There'll be hunting, then. And the wild corn's due soon. We'll have a-plenty to eat."

"Pass the biscuits, Bethsheba. *Urp.* More we eat, Linc, the fatter we'll get for next winter."

Linc pointed to the white cloth. "Them don't fatten you up none."

"They're good anyhow. Try some of these here fish eggs."

"Yeah—*pfui.* Where's the water?"

Hartwell laughed. Linc said, "We going north come summer?"

"We ain't voted on it yet. I'd say no. Me, I'd rather head south."

"More towns. It ain't safe to go on raiding, Jesse."

"Nobody can't find us once we get back in the woods."

"They got guns."

"You scared?"

"I ain't scared of nothing," Linc said. "Only I sort of know you're thinking about another raid. And I'm telling you to count me out."

Hartwell's heavy shoulders hunched. He reached for a sardine, ate it slowly, and then turned his head toward the boy. His lids were half-lowered.

"Yaller?" But he made it a question, so a fight wasn't obligatory.

"You seen me fight a grizzly with a knife."

"I know," Hartwell said, rubbing the white streak in his beard. "A guy can turn yaller, though. I ain't saying that's it, understand. Just the same, nobody else is trying to back out."

"On that first raid we was starving. The second—well, that might pass too. But I don't see no percentage in raiding just so you can eat fish eggs and worms."

"That ain't all of it, Linc. We got blankets, too. Things like that we needed. Once we lay our hands on a few guns—"

"Getting too lazy to pull a bow?"

"If you're spoiling for a fight,"

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Hartwell said slowly, "I can oblige you. Otherwise shut up."

Linc said, "O.K. But I'm serving notice to count me out on any more raids."

In the shadows Cassie's hand tightened on the dagger's hilt. But Hartwell suddenly laughed and threw his steakbone at Linc's head. The boy ducked and glowered.

"Come the day your belt starts pinching, you'll change your mind," Hartwell said. "Forget about it now. Git that squaw of yours and make her eat; she's too skinny." He swung toward the woods. *"Cassie!* C'mon and have some of this fish soup."

Linc had turned away, readjusting his cap. His face was less somber now, though it was still thoughtful. Cassie holstered her knife and came out into the firelight. Hartwell beckoned to her.

"Come and get it," he said.

The air was peaceful again. No more friction developed, though Linc, Cassie knew, was in a quarrelsome mood. But Hartwell's good humor was proof against any but direct insults. He passed around the whiskey bottle he had looted—a rare treat, since the tribe could distill smoke only when they settled for a while, which wasn't often. Linc didn't drink much. Long after the fire had been smothered and snores came from the lean-tos around him, he lay awake, troubled and tense.

Something—someone—was calling him.

It was like one of his hunches. It was like what he had felt during the raids. It was like Cassie's nearness, and yet there was a queer, exciting difference. There was a friendliness to that strange call that he had never felt before.

Dim and indefinable, a dweller hidden deep in his mind woke and responded to that call of a kindred being.

After a while he rose on one elbow and looked down at Cassie. Her face was partly veiled by the deeper blackness of her hair. He touched its soft, living warmth gently. Then he slipped noiselessly out of the shelter and stood up, staring around.

There was a rustling of leaves, and the chuckling of the brooklet. Nothing else. Moonlight dappled the ground here and there. A woodrat rustled softly through the wild grasses. The air was very cold and crisp, with a freshness that stung Linc's cheeks and eyes.

And suddenly he was frightened. Old folktales troubled him. He remembered his foster mother's stories of men who could turn to wolves, of the Wendigo that swept like a vast wind above the lonely forests, of a Black Man who bought souls—the formless, dark fears of childhood rose up in nightmare reality. He had killed a grizzly with his knife, but he had never stood alone at night in the woods, while a Call murmured in his mind—silently—and made his blood leap up in fiery response.

He was afraid, but the bait was too strong. He turned south, and walked out of the camp. Instinc-

tive training made his progress noiseless. He crossed the brook, his sandals inaudible on the stones, and mounted a slope. And there, sitting on a stump waiting for him, was a man.

His back was toward Linc, and nothing could be seen but the hunched torso and the bald, gleaming head. Linc had a momentary horrible fear that when the man turned, he might see his own face. He touched his knife. The confused stirring in his brain grew chaotic.

"Hello, Linc," a low voice said.

Linc had made no sound, and he knew it. But, somehow, that dark figure had sensed his approach. The Black Man—?

"Do I look black?" the voice asked. The man stood up, turning. He was sneering—no, smiling—and his face was dark and seamed. He wore town clothes.

But he wasn't the Black Man. He didn't have a cloven hoof. And the warm, sincere friendliness subtly radiating from his presence was reassuring to Linc in spite of his suspicions.

"You called me," Linc said. "I'm trying to figure it out." His eyes dwelt on the bald cranium.

"My name's Barton," the man said. "Dave Barton." He lifted something gray—a scalp?—and fitted it carefully on his head. The sneer indicated amusement.

"I feel naked without my wig. But I had to show you I was a . . . a—" He sought for the word that would fit the telepathic symbol. "That you were one of us," he finished.

"I ain't—"

"You're a Baldy," Barton said, "but you don't know it. I can read that from your mind."

"Read my mind?" Linc took a backward step.

"You know what Baldies are? Telepaths?"

"Sure," Linc said doubtfully. "I heard stories. We don't know much about town life. Listen," he said with fresh suspicion, "how'd you come to be out here? How'd—"

"I came looking for you."

"Me? Why?"

Barton said patiently, "Because you're one of Us. I can see I've got to explain a lot. From the beginning, maybe. So—"

He talked. It might have been more difficult had they not been Baldies. Though Linc was telepathically untrained, he could nevertheless receive enough mental confirmation to clarify the questions in his mind. And Barton spoke of the Blowup, of the hard radiations—so much Greek to Linc, until Barton used telepathic symbolism—and, mostly, of the incredible fact that Linc wasn't merely a hairless freak in his tribe. There were other Baldies, a lot of them.

That was important. For Linc caught the implications. He sensed something of the warm, deep understanding between telepaths, the close unity of the race, the feeling of *belonging* that he had never had. Just now, alone in the woods with Barton, he was conscious of more

genuine intimacy than he had ever felt before.

He was quick to understand. He asked questions. And, after a while, so did Barton.

"Jesse James Hartwell's behind the raids. Yeah, I was in on 'em. You mean you all wear them wigs?"

"Naturally. It's a big civilization, and we belong to it. We're part of the whole set-up."

"And . . . and nobody laughs at you for being bald?"

"Do I look bald?" Barton asked. "There are drawbacks, sure. But there are plenty of advantages."

"I'll say!" Linc breathed deeply. "People . . . the same sort . . . your own sort—" He was inarticulate.

"The non-Baldies didn't always give us an even break. They were afraid of us, a little. We're trained from childhood never to take advantage of our telepathic powers with humans."

"Yeah, I can see that. It makes sense."

"Then you know why I came, don't you?"

"I can sort of understand it," Linc said slowly. "These raids . . people might start thinking a Baldy's involved— *I'm* a Baldy!"

Barton nodded. "Hedgehounds don't matter. A few raids—we can take care of them. But to have one of Us involved is bad medicine."

"I told Jesse James Hartwell tonight I was having no part in any more raiding," Linc said. "He won't push me."

"Yes— That helps. Listen, Linc. Why don't you come home with me?"

Years of training made Linc pause. "Me? Go into a town? We don't do that."

"You?"

"The . . . Hedgehounds. I ain't a Hedgehound, am I? Gosh, this is—" He rubbed his jaw. "I'm all mixed up, Barton."

"Tell you what. Come with me now, and see how you like our sort of life. You never were trained to use your telepathic function, so you're like a half-blind man. Take a look at the set-up, and then decide what you want to do."

On the verge of mentioning Cassie, Linc paused. He was half afraid that if he spoke of her, Barton might withdraw his offer. And, after all, it wasn't as if he intended to leave Cassie permanently. It'd be just for a week or two, and then he could come back to the tribe.

Unless he took Cassie with him now—

No. Somehow he'd feel shamed in admitting that he, a Baldy, had married a Hedgehound. Though he was proud of Cassie herself, all right. He'd never give her up. It was only—

He was lonely. He was horribly, sickeningly lonely, and what he had glimpsed in Barton's mind and Barton's words drew him with overpowering force. A world where he belonged, where no one called him skinhead, where he'd never feel inferior to the bearded men of the tribe. A wig of his own.

Just for a few weeks. He couldn't miss this chance. He couldn't! Cassie would be waiting for him when he came back.

"I'll go with you," he said. "I'm ready right now. O.K.?"

But Barton, who had read Linc's mind, hesitated before he answered.

"O.K.," he said at last. "Let's go."

Three weeks later Barton sat in McNey's solarium and shaded his eyes wearily with one hand. "Linc's married, you know," he said, "to a Hedgehound girl. He doesn't know we know it."

"Does it matter?" McNey asked. He was looking very tired and troubled.

"I suppose not. But I thought I'd better mention it, because of Alexa."

"She knows her own mind. And she must know about Linc being married, too, by this time. She's been giving him telepathic coaching for weeks."

"I noticed that when I came in."

"Yeah," McNey said, rubbing his forehead. "That's why we're being oral. Telepathic conversations distract Linc when there's more than one; he's still learning selectivity."

"How do you like the boy?"

"I like him. He's not . . . quite what I'd expected, though."

"He grew up with the Hedgehounds."

"He's one of Us," McNey said with finality.

"No symptoms of paranoid tendencies?"

"Definitely not. Alexa agrees."

"Good," Barton said. "That relieves me. It was the one thing I was afraid of. As for the Hedgehound girl, she's not one of Us, and we can't afford to weaken the race by intermarriage with humans. That's been an axiom almost since the Blowup. My own feeling is that if Linc marries Alexa or any other one of Us, it's all to the good, and we can forget about previous entanglements."

"It's up to her," McNey said. "Any more Hedgehound raids?"

"No. But they're the least of my troubles. Sergei Callahan's gone underground. I can't locate him, and I want to."

"Just to kill him?"

"No. He must know other key paranoids. I want to drag that information out of him. He can't blur his mind permanently—and once I get him where I want, he'll have few secrets left."

"We're fighting a losing battle."

"Are we?"

"I can't talk yet," McNey said, with subdued violence. "I can't even let myself think about the problem. I . . . it works out this way. There's crux, a single equation, that must be solved. But not yet. Because the moment I solve it, my mind can be read. I've got to work out all the minor details first. Then—"

"Yes?"

McNey's smile was bitter. "I don't know. I'll find an answer. I haven't been idle."

"If we could crack the Power," Barton said. "If we could only tap the paranoid's code—"

"Or," McNey said, "if we had a code of our own—"

"Unbreakable."

"Which is impossible, by any mechanical means. No scrambler could work, because we'd have to know

the key, and our minds could be read by paranoids. I don't want to think about it any more for a while, Dave. The details, yes. But not the problem itself. I . . . might solve it before I'm ready."

"The paranoids are plenty busy," Barton said. "Their propaganda's spreading. That talk about Galileo's secret weapon is still going around."

"Haven't the Galileans made any denials?"

"It isn't that tangible. You can't buck a whispering campaign. That, Darryl, is what's apt to cause a bust-up. You can fight a person or a thing, but you can't fight a wind. A wind that whispers."

"But the atomic bombs! After all—"

"I know. Just the same, some hothead is going to get scared enough to take action one of these days. He'll say, 'Galileo's got a secret weapon. We're not safe. They're going to attack us.' So he'll jump the gun. After that, there'll be other incidents."

"With Us in the middle. We can't stay neutral. I think there'll be a pogrom, Dave, sooner or later."

"We'll survive it."

"You think so? With every non-Baldy's hand ready to strike down telepaths—man, woman or child? There'll be no quarter given. We need another world, a new world—"

"That'll have to wait till we get interstellar ships."

"And meanwhile we live on borrowed time. It might be best if we let the human race reassimilate us."

"Retrogression?"

"Suppose it is? We're in the position of a unicorn in a herd of horses. We daren't use our horn to defend ourselves. We've got to pretend to be horses."

"The lion and the unicorn," Barton said, "were fighting for the crown. Well, Callahan and his paranoids are the lion, all right. But the crown?"

"Inevitably," McNey said, "it must be rule. Two dominant species can't exist on the same planet or even in the same system. Humans and telepaths can't evenly divide rule. We're knuckling under now. Eventually, we'll arrive, by a different path, at Callahan's goal. But not by degrading or enslaving humans! Natural selection is our weapon. Biology's on our side. If we can only live in peace with humans, until—"

"—and drummed them out of town," Barton said.

"So the humans mustn't suspect the lion and the unicorn are fighting. Or what they're fighting for. Because if they do, we won't survive the pogrom. There will be no refuge. Our race is soft, through environment and adaptation."

"I'm worried about Callahan," Barton said suddenly. "I don't know what he's planning. By the time I find out, it may be too late. If he sets something in operation that can't be stopped—"

"I'll keep working," McNey promised. "I may be able to give you something soon."

"I hope so. Well, I'm flying to St. Nick tonight. Ostensibly to check the zoo there. Actually, I've

other motives. Maybe I can pick up Callahan's trail."

"I'll walk you down to the village." McNey went with Barton into the dropper. They stepped outside into the warm, spring air, glancing through the transparent wall at the televisor where Alexa sat with Linc. Barton said, "They don't seem worried, anyhow."

McNey laughed. "She's sending in her column to the *Recorder*. Alexa's a specialist on heart problems. I hope she never has any of her own to solve!"

"—if you love him," Alexa said into the mike, "marry him. And if he loves you, he'll have no objection to running psych-rating tests and comparing *id* balance sheets. You're considering a lifetime partnership, and both of you should read the contracts before signing them." She managed to look like a cat with cream on its whiskers. "But always remember that love is the most important thing in the world. If you find that, it will always be springtime in your hearts. Good luck, Wondering!"

She pressed a switch. "Thirty, Linc. My job's done for the day. That's one sort of job a Baldy can find—heart problem editor on a telepaper. Think you'd like it?"

"No," Linc said. "It ain't . . . it's not up my alley."

He was wearing a silken blue shirt and darker blue shorts, and a cropped brown wig covered his skull. He wasn't used to it yet, and kept touching it uneasily.

"Ain't as good as isn't," Alexa said. "I know what you mean, and that's more important than grammatical construction. More lessons?"

"Not for a while yet. I get tired easy. Talking's still more natural, somehow."

"Eventually you'll be finding it cumbersome. Personal endings—you speak, he speaks, *parlons, parlez, parlent*—telepathically you don't use those vestiges."

"Vestiges?"

"Sure," Alexa said. "From the Latin. The Romans didn't use pronouns. Just *amo, amas, amant,*" she clarified mentally, "and the endings gave you the right pronoun. *Nous, vous,* and *ils* are used now instead, we, you plural, and they. So the endings are unnecessary. If you're communicating with an Swiss telepath, though you might find yourself wondering why he kept thinking of a girl as *it*. But you'd know what *it* meant to him, and you couldn't if you were being oral only."

"It's plenty hard," Linc said. "I'm getting the angles, though. That round-robin business we had last night was—" He groped for a word, but Alexa caught the meaning from his mind.

"I know. There's an intimacy that's pretty wonderful. You know, I've never felt badly about being adopted. I *knew* just where I fitted into Marian's life and Darryl's, and how they felt about me. I knew I belonged."

"It must be a nice feeling," Linc said. "I'm sort of getting it, though."

"Of course. You're one of Us. After you've mastered the telepathic function, you won't have any doubts at all."

Linc watched the play of sunlight on Alexa's bronze curls. "I guess I do belong with your kind of folks."

"Glad you came with Dave?"

He looked at his hands. "I can't tell you, Alexa. I can't tell you how wonderful it is. I'd been shut out in the dark all my life, thinking I was a freak, never feeling right sure about myself. Then all this—" He indicated the televisor. "Magical miracles, that's what. And all the rest."

Alexa understood what was in his mind. Through him she felt the heady excitement of an exile returning to his own kind. Even the visor, familiar symbol of her job, assumed a new glamour, though it was the standard double-screen model, the upper for news flashes, the lower for the twenty-four-hour newspaper that was received, recorded on wire-film, and thereafter available for reference. Push-buttons selected the publication, and the dials made it possible to focus down on the pages, on either the action pictures or the printed matter. Format, of course, was quite as important as news value. The big concealed wall-screen at one end of the room was used for plays, concerts, movies, and Disneys. But for the added sensual attractions of smell, taste, and touch, one had to go to the theaters; such special equipment was still too expensive for the average home.

"Yes." Alexa said, "you're one of Us. And you've got to remember that the future of the race is important. If you stay, you must never do anything to hurt it."

"I remember what you've been telling me about the p-paranoids," Linc nodded. "Guess they're sort of like the cannibal tribes 'mong the Hedgehounds. They're fair quarry for anybody." He felt his wig, stepped to a mirror-unit, and adjusted the headpiece.

Alexa said, "There's Marian outside. I want to see her. Wait for me, Linc; I'll be back."

She went out, Lincoln, awkwardly testing his newly-realized powers, felt her thought fingering subtly toward the plump, pretty woman who was moving among the flowers, armed with gloves and spray.

He wandered to the clavilux, and, one-fingered, picked out a tune. He hummed:

"All in the merry month of May,
When the green buds they were swellin',
Young Jemmy Grove on his death-bed lay
For love of Barb'ry Allen."

Memories of Cassie rose up. He forced them back into the shadows, along with the Hedgehounds and the nomad life he had known. That wasn't his life any more. Cassie—she'd get along all right. He'd go after her, one of these days, and bring her to live with him among the Baldies. Only—only she wasn't a Baldy. She wasn't like Alexa, for instance. She was quite as pretty, sure; yet there was all this talk about the future of the race.

If, now, he married a Baldy and had Baldy sons and daughters—

But, he was already married. What was the good of thinking so? A Hedgehound marriage might not amount to a hill of beans among the townsfolk, of course, and, anyway, all this mental round-robin stuff was sort of polygamy.

Well, he'd climb that hill when he came to it. First he had to get the trick of this telepathy business. It was coming, but slowly, for he'd not been conditioned since infancy, as other Baldies were. The latent power had to be wakened and directed—not as a child could be taught, but allowing for Linc's maturity, and his ability to grasp and understand the goal.

Marian came in with Alexa. The older woman stripped off her cloth gloves and brushed beads of perspiration from her ruddy cheeks. "'Lo, Linc," she said. "How's it going?"

"Fairish, Marian. You should of asked me to help out there."

"I need the exercise. I gained three pounds this morning arguing with that turnip-bleeder Gatson, down at the store. Know what he wants for fresh breadfruit?"

"What's that?"

"Catch this." Marian formed mental concepts involving sight, touch and taste. Alexa chimed in with the smell of breadfruit. Linc had his own arbitrary standards for comparisons, and within a second had assimilated the absolute meaning; he would recognize a breadfruit from now on. Marian threw a quick mental question. Linc answered.

To town (Darryl McNey) by window (ten minutes past)

"A bit confused," Marian said, "but I get the idea. He ought to be back soon. I'm in the mood for a swim. Suppose I fix some sandwiches?"

"Swell," Alexa said. "I'll help. Linc knows more about catching trout than anybody I've ever seen, except he doesn't know what a dry fly is."

"I just aim to catch fish," Linc said. "Enough to eat. Many a time I had to fish through holes in the ice to keep from being hungry."

Later, stretching his brown, hard body on the sandy bank of the pool upstream, he luxuriated in the warm sunlight and watched Alexa. Slim and atractive in white shorts and bathing cap, she inexpertly practiced casting, while McNey, pipe in his mouth, worked a likely-looking spot under an overhang of branches that brushed the water. Marian placidly ate sandwiches and watched the activities of a community of ants with considerable interest. The deep, unspoken comradeship of the family and the race was intangibly in the air, a bond that reached out, touched Linc, and drew him into its friendly c e n t e r. *This is it,* he thought. *I belong here.* And Alexa's mind answered him with quiet confidence: *You are one of Us.*

The months passed very quickly for Linc, broken by occasional visits from Dave Barton, whose manner grew increasingly more troubled,

and by the green that covered tree and brush, ground and vine, as spring gave place to summer, and summer drew toward a not-distant autumn. He seldom thought of the Hedgehounds now. There was a sort of tacit acceptance of the situation among the little group; he felt, without actually bringing the realization consciously to mind, that Alexa knew a great deal about his past, and that she would not bring up the matter of Cassie unless he did. That she was beginning to love him he did not doubt. Nor did he doubt much that he loved her. After all, Alexa was his kind, as Cassie never had been.

But he dreamed of Cassie, nevertheless. Sometimes he felt loneliness, even among his own people. At such times he was anxious to finish his telepathic training and join Barton's fight against the paranoids. Barton was eager to enlist Linc, but he warned against the danger of moving too soon. "The paranoids aren't fools, Linc," he said. "We mustn't underestimate them. I've lived this long simply because I'm a trained big-game hunter. My reactions are just a bit faster than theirs, and I always try to maneuver them in a position where telepathy can't help them. If a paranoid's at the bottom of a well, he may read your intention of dropping a load of bricks on his head—but he can't do a lot about it."

"Any news about Callahan?" McNey asked.

"No word for months. There's some plan—maybe a big push in the propaganda field, maybe assassinations of key technologists. I don't know what. I've read no minds that knew the right answers. But I think something's going to break soon; I've found out that much. We've got to be ready for it. We've got to break their code—or get one of our own. The same tune, Darryl."

"I know," McNey said. He stared out at the empty blue sky. "There isn't much I can say now, or even think. The same tune, all right."

"But you haven't failed? In a few weeks you're due back at Niagara."

Linc said, "Look, about this code. I was thinking, the Hedgehounds have got a sort of code. Like this." He imitated a few bird and animal calls. "We know what they mean but nobody else knows."

"Hedgehounds aren't telepaths. If they were, your code wouldn't stay a secret long."

"Guess you're right. I'd like to take a crack at the paranoids, though."

"You'll have your chance," Barton said. "But, meanwhile, it's Darryl's job to find us a new weapon."

McNey said wearily, "I know all about that. No more pep talks, Dave, please."

Barton stood up, scowling. "I've a job to do down south. I'll see you when I get back, Darryl. Meanwhile, take care of yourself. If this business—whatever it is—should break soon, don't run any risks. You're vital to Us, much more so than I am."

With a nod to Linc he went out. McNey stared at nothing. Linc hesitated, sent out a querying thought, and met abstracted rebuff. He went downstairs.

He couldn't find Alexa. Finally he went out into the gardens, working his way toward the brook. A flash of color caught his eye, and he headed for it.

Alexa was sitting on a rock, her flimsy playsuit unzipped to let the slight breeze cool her. The heat was so intense that she had removed her wig, and her bald was shiny and incongruous, incompatible with her artificial lashes and eyebrows. It was the first time Linc had ever seen her wigless.

Instantly, at his thought, she swung about and began to replace the wig. But her arm stopped in arrested motion. She looked at him, half questionably, and then with pain and growing understanding in her eyes.

"Put it on, Alexa," Linc said.

She watched him steadily. "What for—now?"

"I . . . it doesn't—"

Alexa shrugged and slipped the headpiece into place. "That was . . . strange," she said, deliberately speaking aloud as if she did not want to let her mind slip back into the channels of telepathic intimacy where hurt can strike so unerringly. "I'm so used myself to Baldies being —bald. I never thought before the sight could be—" She did not finish aloud. After a moment she said, "You must have been very unhappy among the Hedgehounds, Linc. Even more unhappy than you realize. If you've been conditioned against the sight of baldness to . . . to *that* extent—"

"It wasn't," Linc denied futilely. "I didn't . . . you s h o u l d n ' t think—"

"It's all right. You can't help reactions as deeply rooted as that. Some day standards of beauty will change. Hairlessness will be lovely. Today it isn't, certainly not to a man with your psychological background. You must have been made to feel very keenly that you were inferior because of your baldness—"

Linc stood there awkwardly, unable to deny the thought that had sprung so vividly into his mind, burning with shame and dismay at the knowledge that she had seen as clearly as himself the ugly picture of her baldness in his thought. As if he had held up a distorting mirror to her face and said aloud, "This is the way you look to me." As if he had slapped her gratuitously across the cheek with the taunt of her—abnormality.

"Never mind," Alexa said, a little shakily, smiling. "You can't help it if baldness disg . . . distresses you. Forget it. It isn't as if we were m-married or . . . anything."

They looked at each other in silence. Their minds touched and sprang apart and then touched again, tentatively, with light thoughts that leaped from point to point as gingerly as if the ideas were ice-floes that might sink beneath the full weight of conscious focus.

I thought I loved you . perhaps I did . . . yes, I too . . . but now there can't be . . . (sudden,

rebellious denial) . . . no, it's true, there can't ever be rightness between us . . . not as if we were ordinary people . . . we'd always remember that picture, how I looked (abrupt sheering off from the memory) . . . (agonized repudiation of it) . . . no, couldn't help that . . . always between us . . . rooted too deeply . . . and anyhow, Cas — (sudden closing off of both minds at once, before even the thought-image had time to form.)

Alexa stood up. "I'm going into town," she said. "Marian's at the hairdresser's. I . . . I'll get a wave or something."

He looked at her helplessly, half reluctant to let her go, though he knew as well as she how much had been discussed and weighed and discarded in the past moment of voiceless speech.

"Good-by, Alexa," he said.

"Good-by, Linc."

Linc stood for a long time watching the path, even after she had gone. He would have to leave. He didn't belong here. Even if nearness to Alexa were possible after this, he knew he could not stay. They were—abnormal. He would be seeing the baldness, the contemptible, laughable baldness he had hated in himself, more clearly now than the wigs they wore. Somehow until this moment he had never fully realized—

Well, he couldn't go without telling Darryl. Slowly, dragging his feet a little, he turned back toward the house. When he came to the side lawn he sent out an inexpert, querying thought.

Something answered him from the cellar-laboratory, a queer, strange, disturbing vibration that clung briefly to his mind and then pulled away. It wasn't McNey. It was—an intruder.

Linc went down the cellar steps. At the bottom he paused, trying to sort the tangled confusion in his mind as he thrust out exploratory mental fingers. The door was open. McNey was lying on the floor, his mind blanked, blood seeping from a red stain on his side.

The intruder?

Who—

Sergei Callahan.

Where—

Hidden. And armed.

So am I, Linc thought, his dagger springing into his hand.

Telepathically you are untrained. In a fight you can't win.

That was probably true. Telepathy took the place of prescience with the Baldies. Any Baldy could outguess and conquer a non-Baldy, and Linc was not yet thoroughly trained in the use of the telepathic function.

He probed awkwardly. And, suddenly, he knew where Callahan was.

Behind the door. Where he could strike Linc in the back when the boy entered the laboratory. He had not expected the untrained Baldy to discover the ambush until too late, and even as Linc realized the situation, Callahan made a move to spring out.

All Linc's weight smashed against the panel, slamming the door back

against the wall. Callahan was caught. Pressed helplessly between the two metal planes—door and wall—he tried to brace himself, to wriggle free. His hand, gripping a dagger, snaked out. Linc dropped his own weapon, put his back against the door, and planted his feet more firmly. The door frame gave him good purchase. Veins stood out on his forehead as he ground, crushed, drove the door back with all his strength.

What had Dave Barton said once? "Kill them with machines—"

This was a machine—one of the oldest. The lever.

Suddenly Callahan began to scream. His agonized thought begged for mercy. In a moment his strength would fail, he pleaded. "Don't—*don't crush me!*"

His strength failed.

Linc's heavy shoulders surged. There was one frightful mental scream from Callahan, more agonizing than the audible sound he made, and Linc let the door swing slowly away from the wall. A body collapsed with its movement. Linc picked up his dagger, used it efficiently, and then turned to McNey.

There was a puddle of blood on the floor, but McNey still lived. Callahan had not had time to finish his task.

Linc became busy administering first aid.

This was it.

It was past midnight. In the cellar laboratory, McNey leaned back in his chair, wincing as he felt the pressure of the bandages about his ribs. He blinked at the fluorescents, sighed, and rubbed his foreheads.

His hand hovered over the notepad. An equation was lacking. He wasn't quite ready to think of it just yet.

But the job was almost finished. It would give the Baldies a weapon, at last, against the paranoids. They couldn't tap the paranoid's secret wave length, but they could—

Not yet. Don't think of it yet.

Even Linc had helped, unknowingly, by one suggestion he had made. Mimicry. Yes, that was one answer. The paranoids would not even suspect—

Not yet.

Well, Linc had gone back to his Hedgehound tribe and his Hedgehound squaw. In the end, the psychological fixation implanted in the boy's mind had proved stronger than the strong bonds of race. Too bad, because Linc had had something that few Baldies possessed—an innate hardness, a resourceful strength that might prove useful in the dark days that were coming.

The dark days that might yet be postponed, for a while, if—

Marian was asleep. McNey forced his thought from her. After years of marriage, they were so closely attuned that even that casual thought might waken her. And not until she had fallen asleep had he dared to bring his mind to bear on this ultimate problem. There could be no secrets between Baldies.

But this would be a secret—the one that would give Dave Barton a weapon against the paranoids. It

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was the unbreakable code that McNey had searched for for two years now.

It was a secret method of communication for Baldies.

Now. Work fast. *Work fast!*

McNey's stylus moved rapidly. He made a few adjustments in the machine before him, sealed its fastenings thoroughly, and watched power-flow develop. After a while, something came out of a small opening at one end of the device, a fine mesh of wire, with a few flatly curved attachments. McNey took off his wig, fitted the wire cap to his head, and donned the wig again. After a glance at a mirror, he nodded, satisfied.

The machine was permanently set now to construct these communicator caps when raw materials were fed into it. The matrix, the blueprint, had been built into the device, and the end result was a communicator gadget, easily hidden under a wig, which every nonparanoid Baldy probably would eventually wear. As for the nature of the gadget—

The problem had been to find a secret means of communication, akin to the paranoids' untappable wave band. And telepathy itself is simply a three-phase oscillation of electromagneto-gravitic e n e r g y, emanating from the specialized colloid of the human brain. But telepathy, *per se,* can be received by any sensitive mind en rapport with the sender.

And so the trick had been—find a method of artificial transmission. The brain, when properly stimulated by electric energy, will give out electromagnet-gravitic energy, undetectable except to telepaths because there are no instruments sensitive to this output. But when the paranoids would receive such radiations, without the unscrambling assistance of one of McNey's little caps, they wouldn't suspect a code.

Because they'd be hearing—sensing—only static.

It was a matter of camouflage. The waves masqueraded. They masqueraded on a wave band that nobody used, for that particular band was too close to that of the radio communicators used in thousands of private helicopters. For these radios, five thousand megacycles was normal; fifteen thousand manifested itself as a harmless harmonic static, and McNey's device simply added more squirts of static to that harmonic interference.

True, direction finders could receive the signals and locate them—but helicopters, like Baldies, were scattered all over the country, and the race traveled a good deal, both by necessity and by choice. The paranoids could locate the source of the fifteen thousand megacycles emanating from the wire caps—but why should they think to?

It was an adaptation of the Hedgehounds' code of imitating bird and animal calls. A tenderfoot in the woods wouldn't look for a language in the cry of an owl—and the paranoids wouldn't be seeking secret message in what was apparently only static.

So, in these light, easily disguised mesh helmets, the problem was

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Source: Bureau of Labor Statistics

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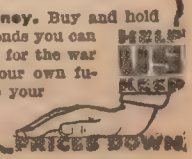

A United States War message prepared by the War Advertising Council; approved by the Office of War Information; and contributed by this magazine in cooperation with the Magazine Publishers of America.

solved, finally. The power source would be an automatic tapping of free energy, an imperceptible drain on any nearby electrical generator, and the master machine itself, which made the communicators, was permanently sealed. No one, except McNey himself, knew even the principles of the new communication system. And, since the machine would be guarded well, the paranoids would never know, any more than Barton himself would know, what made the gadget tick. Barton would realize its effectiveness, and that was all. The list of raw materials needed was engraved on the feeder-hopper of the machine; nothing else was necessary. So Barton would possess no secrets to betray inadvertently to the paranoids, for the secrets were all sealed in the machine, and in one other place.

McNey took off the wire cap and laid it on the table. He turned off the machine. Then, working quickly, he destroyed the formulas and any traces of notes or raw materials. He wrote a brief note to Barton, explaining what was necessary.

There was no more time left after that. McNey sank back in his chair, his tired, ordinary face without expression. He didn't look like a hero. And, just then, he wasn't thinking about the future of the Baldy race, or the fact that the other place where the secret was sealed was in his brain.

As his hands loosened the bandage about his ribs, he was thinking of Marian. And as his life began to flow out with the blood from his reopened wound, he thought: *I wish I could say good-by to you, Marian. But I mustn't touch you, not even with my mind. We're too close. You'd wake up, and—*

I hope you won't be too lonely, my dear—

He was going back. The Hedgehounds weren't his people, but Cassie was his wife. And so he had betrayed his own race, betrayed the future itself, perhaps, and followed the wandering tribe across three states until now, with the autumn winds blowing coldly through bare leaves, he had come to the end of his search. She was there, waiting. She was there, just beyond that ridge. He could feel it, sense it, and his heart stirred to the homecoming.

Betrayal, then. One man could not matter in the life of a race. There would be a few Baldy children less than if he had married Alexa. The Baldies would have to work out their own salvation—

But he wasn't thinking about that as he leaped the last hurdle and ran to where Cassie was sitting near the fire. He was thinking about Cassie, and the glossy darkness of her hair, and the soft curve of her cheek. He called her name, again and again.

She didn't believe it at first. He saw doubt in her eyes and in her mind. But that doubt faded when he dropped beside her, a strange figure in his exotic town clothing, and took her in his arms.

"Linc," she said, "you've come back."

He managed to say, "I've come

back," and stopped talking and thinking for a while. It was a long time before Cassie thought to show him something in which he might be expected to evince interest.

He did. His eyes widened until Cassie laughed and said that it wasn't the first baby in the world.

"I . . . us . . . you mean—"

"Sure. Us. This is Linc Junior. How'd you like him? He takes after his dad, too."

"What?"

"Hold him." As Cassie put the baby into his arms, Linc saw what she meant. The small head was entirely hairless, and there was no sign of lashes or eyebrows.

"But . . . you ain't bald, Cassie. How—"

"You sure are, though, Linc. That's why."

Linc put his free arm around her and drew her close. He couldn't see the future; he couldn't realize the implications of this first attempt at mixing races. He only knew a profound and inarticulate relief that his child was like himself. It went deeper than the normal human desire to perpetuate one's own kind. This was reprieve. He had not, after all, wholly failed his race. Alexa would never bear his children, but his children need not be of alien stock in spite of it.

That deep warping which the Hedgehounds had wrought upon himself must not happen to the child. *I'll train him,* he thought. *He'll know from the start—he'll learn to be proud he's a Baldy. And*

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then if they ever need him . . . no, if We ever need him . . . he'll be ready where I failed.

The race would go on. It was good and satisfying and right that the union of Baldy and human could result in Baldy children. The line need not come to dead end because a man married outside his own kind. A man must follow his instinct, as Linc had done. It was good to belong to a race that allowed even that much treason to its tradition, and exacted no lasting penalty. The line was too strong to break. The dominant strain would go on.

Perhaps McNey's invention could postpone the day of the pogrom. Perhaps it could not. But if the day came, still the Baldies would go on. Underground, hidden, persecuted, still they must go on. And perhaps it would be among the Hedgehounds that the safest refuge could be found. For they had an emissary there, now—

Maybe this was right, Linc thought, his arm around Cassie and the child. *Once I belonged here. Now I don't. I'll never be happy for good in the old life. I know too much— But here I'm a link between the public life and the secret life of the refugees. Maybe some day they'll need that link.* "Linc," he mused, and grinned.

Off in the distance a growl of song began to lift. The tribesmen, coming back from the day's hunting. He was surprised, a little, to realize he felt no more of the old, deep, bewildered distrust of them. He understood now. He knew them as they could never know themselves, and he had learned enough in the past months to evaluate that knowledge. Hedgehounds were no longer the malcontents and misfits of civilization. Generations of weeding-out had distilled them. Americans had always been a distillation in themselves of the pioneer, the adventurous drawn from the old world. The buried strain came out again in their descendants. The Hedgehounds were nomads now, yes; they were woodsmen, yes; they were fighters, always. So were the first Americans. The same hardy stock that might, some day, give refuge again to the oppressed and the hunted.

The song grew louder through the trees, Jesse James Hartwell's roaring bass leading all the others.

"Hurrah, hurrah, we bring the jubilee!
Hurrah, hurrah, the flag that makes
men free—"

THE END.

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